A management tool for the due diligence stage of M&A transactions

by

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Declaration

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Abstract

Organisations are under constant pressure to sustain themselves and grow in an environment that is characterised by increasing competition, a changing socio-economic landscape, and shrinking geographical boundaries. In order to remain a player or an industry leader, it is imperitave for companies to achieve real growth. Mergers and Acquisitions (M&A) is an external mechanism for organisations to achieve real growth.

There are different stages in a typical M&A transaction. In this regard, the due diligence stage of a M&A transaction is a critical intitial stage to evaluatinging whether or not to proceed with a deal. Further, it provides essential information that is used in setting negotiating parameters, determining bid prices and providing a basis for initial integration recommendations. A higher probability of success can be secured for a deal in circumstances where the due diligence stage of a M&A transaction is managed effectively.

This research aims to solve three key issues within a M&A deal by focussing on the due diligence stage. Firstly, this research aims to provide a systematic approach to managing the due diligence process. Secondly, this research aims to address the significant constraints, specifically cost and time, facing the due diligence process. Lastly, this research endeavours to address the risk factors associated with an M&A deal. By addressing these three issues in combination, this research aims to increase the probability of success for a deal by ensuring that the due diligence process is adequate and comprehensive. To address these aims, this research develops a conceptual framework and due diligence management tool for the due diligence stage of M&A transactions.

The outcomes of two literature reviews are used to develop a conceptual framework. To assist in the development of the framework, a Grounded Theory Methodology is followed. In this regard Jabareen's Conceptual Framework Analysis method is employed. The eight phases in this method are covered systematically throughout this research to develop the conceptual framework.

The conceptual framework consists of four components. The two core components of the framework provide the user with guidelines and best practices for managing the due diligence process and conducting the due diligence review, whilst the two minor components of the framework illustrate how the due diligence stage of a M&A transaction should support the overall deal, both before and after the deal is completed.

The conceptual framework is validated through the outcomes of semi-structured interviews which are conducted with professionals working within the M&A field. The feedback from these interviews are used to address any issues and implement practical industry procedures within the framework.

The validated framework is used in conjunction with Gillman's Integrated Due Diligence Approach to create the due diligence management tool. The tool enables users to design a due diligence process which is specific to the needs of that transaction whilst ensuring that all important aspects required to ensure the success of a transaction are considered. The tool is evaluated through the application of a case study involving a M&A transaction in the engineering industry in South Africa.

The unique contribution of this study is in the form of the conceptual framework and the due diligence management tool. The systematic approach used in the development of the framework and the management tool allows for further development and expansion. It is recommended that future work focus on the implementation of the management tool, with a view to refining the effectiveness of the tool.

Opsomming

Organisasies is voortdurende onder druk om hulself instand te hou en te groei in 'n omgewing wat gekenmerk word deur toenemende mededinging, 'n veranderende sosio-ekonomiese landskap en krimpende geografiese grense. Om 'n deelnemer of 'n bedryfsleier te bly, is dit onontbeerlik vir ondernemings om werklike groei te bewerkstellig. Samesmeltings en verkrygings (S&V) is 'n eksterne meganisme vir organisasies om werklike groei te bereik.

Daar is ‘n verskeidenheid fases in 'n tipiese S&V-transaksie. In hierdie opsig is die omsigtigheidsfase van 'n S & V-transaksie van kritieke belang om te evalueer of daar met die transaksie voortgegaan moet word al dan nie. Verder bied dit noodsaaklike inligting wat gebruik word om onderhandelingsparameters op te stel, bodpryse te bepaal en 'n basis te bied vir aanvanklike integrasie-aanbevelings. 'n Groter kans op sukses kan verseker word vir 'n transaksie wat plaasvind in omstandighede waar die omsigtigheidsfase van 'n S&V-transaksie effektief bestuur word.

Die doel van hiedie navorsing is om drie sleutelkwessies van 'n tipiese S&V-ooreenkoms op te los, deur op die omsigtigheidsfase van die ooreenkoms te konsentreer. Eerstens het hierdie navorsing ten doel om 'n sistematiese benadering tot die bestuur van die omsigtigheidsproses te bied. Tweedens het hierdie navorsing ten doel om die beduidende beperkinge, spesifiek koste en tyd, aan te spreek vir die proses van behoorlike omsigtigheid. Laastens poog hierdie navorsing om die risikofaktore verbonde aan 'n S&V-ooreenkoms aan te spreek. Deur hierdie drie probleme in kombinasie aan te spreek, beoog hierdie navorsing om die waarskynlikheid van sukses vir 'n ooreenkoms te verhoog deur te verseker dat die omsigtigheidsproses voldoende en omvattend is. Om hierdie doelstellings te bereik, ontwikkel hierdie navorsing 'n konseptuele raamwerk en bestuursinstrument vir die omsigtigheidsfase vir S&V-transaksies.

Die uitkomste van twee literatuuroorsigte word gebruik om 'n konseptuele raamwerk te ontwikkel. Om die raamwerk tot stand te bring word die ‘Grounded Theory’ bendadering gebruik. Die metode van konseptuele raamwerkanalise van Jabareen word gebruik om die raamwerk te staaf. Die agt fases in hierdie metode word stelselmatig gedurende hierdie navorsing behandel om die konseptuele raamwerk te ontwikkel.

Die konseptuele raamwerk bestaan uit vier komponente. Die twee kernkomponente van die raamwerk gee aan die gebruiker riglyne en beste bestuurspraktyke vir die bestuur en uitvoering van die omsigtigheidsproses. Die oorblywende twee geringe komponente van die raamwerk illustreer hoe die omsigtigheidsfase van 'n S&V-transaksie die algehele steun moet bied vir die ooreenkoms – voor en na afhandeling van die ooreenkoms.

Die konseptuele raamwerk word bekragtig deur die uitkoms van semigestruktureerde onderhoude wat gevoer word met professionele persone wat binne die S&V-veld werk. Die terugvoer van hierdie onderhoude word gebruik om probleme aan te spreek en praktiese bedryfsprosedures binne die raamwerk te implementeer.

Die goedgekeurde raamwerk word gebruik in samewerking met ‘Gillman’s Integrated Due Diligence’-benadering om die instrumente vir die bestuur van die omsigtigheidsproses te skep. Die instrument stel gebruikers in staat om 'n behoorlike omsigtigheidsproses te ontwerp wat spesifiek voldoen aan die behoeftes van die transaksie, terwyl hulle sorg dat alle belangrike aspekte oorweeg word, wat nodig is om die sukses van 'n transaksie te verseker. Die instrument word geëvalueer deur middel van die toepassing van 'n gevallestudie oor 'n S&V-transaksie in die in Suid-Afrikaanse ingenieursbedryf.

Die unieke bydrae van hierdie studie is duidelik in die uitleg van die konseptuele raamwerk en die instrument vir die omsigtigheidsproses. Die sistematiese benadering wat gebruik word in die ontwikkeling van die raamwerk en die bestuursinstrument maak voorsiening vir verdere ontwikkeling en uitbreiding. Dit word aanbeveel dat toekomstige werk fokus op die implementering van die bestuursinstrument, met die oog op die verfyning van die effektiwiteit van die instrument.

Acknowledgements

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I would like to thank my partner and best friend, Richard. Your unwavering support, guidance and motivation made the completion of this research project possible. Thank you for being there with me through every step of this process and for helping me realise the full potential of this research.

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List of Acronyms and Abbreviations

AI	Artificial Intelligence
BBBEE	Broad Based Black Economic Empowerment
CFA	Conceptual Framework Analysis
CSF	Critical Success Factor
DDM	Due Diligence Management
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
ECIPP	Establishing Mandates, Creating Projections, Identifying Issues, Prioritizing Procedure, Performing Them
EMS	Environmental Management System
EngCo	Engineering Company
GT	Grounded Theory
HR	Human Resources
IP	Intellectual Property
IT	Information Technology
LOI	Letter of Intent
M&A	Mergers and Acquisitions
NPV	Net Present Value
OHS	Operational Health and Safety
PECo	Private Equity Company
R&D	Research and Design
REC	Research and Ethics Committee
SEM	Strategic Environmental Management

Chapter 1 - Introduction

1.1. An introduction to the due diligence stage of an M&A transaction

Organisations are under constant pressure to sustain themselves and grow in an environment that is characterised by increasing competition, a changing socio-economic landscape, and shrinking geographical boundaries. The changing socio-economic landscape can, at times, be accompanied by changing regulatory conditions that are not necessarily "business friendly". In order to remain a player or an idustry leader, it is imperitave for companies to achieve real growth (Horwitz *et al.*, 2002; Bruner, 2004). Traditional methods of achieving growth such as cutting costs, automation and finding ways to make the organisation more efficient may only assist in growing the organisation to a certain extent.

Mergers and acquisitions, henceforth referred to as M&A, is an external mechanism for organisations to achieve real growth. M&A has been a popular growth strategy since the latter part of the twentieth century for both big and small firms (Makri, Hitt and Lane, 2010). Organisations see M&A representing an alternative strategy for strategic expansion and growth (Shimizu *et al.*, 2004). This is indicated through the increasing value of M&A deals year-on-year. As an example, acquisitions which were completed in 1997 alone were valued at more than all the acquisitions which occurred throughout the 1980s (Hitt, Harrison and Ireland, 2001).

M&As is seen as a valuable tool by organisations through which they can increase revenue streams relatively quickly. The outcome of the merger or acquisition can often result in new organisations whose financial and strategic options are more promising.

Although M&A activity is on the rise, the results of many of these deals are dismal (Marks and Mirvis, 2015). Gomes *et al.* (2013) confirms that less than half of all corporate combinations achieve their financial or strategic objectives. They suggest that the field of M&A suffers from a lack of connectedness which leads to the high failure rate in transactions and that the different streams of M&A research are only marginally informed by each other which leads to much of the understanding of M&A and its complexities being restricted and compartmentalised (Gomes *et al.*, 2013). Thus, there is a need to establish a link between different approaches to M&A.

An M&A deal is typically viewed as a process. Historically, organisations that have not followed a defined M&A deal process have been exposed to more "deal risk", resulting in a higher probability of an unsuccessful deal (Bruner, 2009). There are common elements which make up all M&A deals. These elements include: (i) strategy development, (ii) systematic selection and screening of possible targets, (iii) due diligence, (iv) negotiations, and (iv) integration. Many of the models which describe the M&A process focus their analysis around these core elements. The Deal Flow Model (Galpin and Herndon, 2007) is used throughout this project to refer to the various stages of the M&A process. The stages of this model are summarised in Table 1.1.

Table 1.1 - The Deal Flow Model (Galpin and Herndon, 2007)

Stage	Description
1. Formulate	The first stage sets the tone for the rest of the deal, it is therefore important to start off on the right track. The firm should set out its business objectives and growth strategy in a well-defined, rational and data-oriented way. The executives should explain what a feasible target would encompass in terms of meeting specific criteria. Criteria can include the likes of market share, geographical access, new products or technologies, and synergies. The executives should decide on the rationale behind the merger or acquisition.
2. Locate	During this stage, the acquirer searches for desirable targets. Financial and operational analysis initiate conversations between the executive staff. These conversations lead to high-level identification of potential synergies by the

	M&A deal team. The result of this exercise is the letter of intent which contains the initial deal parameters, terms and conditions.
3. Investigate (Due Diligence)	The third stage of the model consists of a thorough due diligence to explore all aspects of the target. The due diligence that is conducted should uncover as much detail as possible about the target before finalising a definitive agreement. Due diligence should be conducted over several areas such as finance, operations, legal and environmental. The due diligence team summarises their key findings from the process and identifies potential deal "killers" or "synergies". The acquirer uses findings from the due diligence process to set negotiating parameters, determine bid prices and provide the foundation for initial integration recommendations.
4. Negotiate	This stage is made up of a series of steps to satisfy the requirements of the deal and reach a conclusive deal successfully. The deal team drive this stage of the transaction. After being briefed by the due diligence team, the deal team along with senior executives devise the final negotiating strategy for all terms and conditions of the deal. Considerations for the final negotiating strategy include factors such as price, performance, people, legal protection and governance
5. Integrate	This stage of the deal should be customized for each company and modified to each specific deal. This stage involves the process of planning and implementing the newly merged organisation's processes, people, technology and systems. Questions which should be considered during this stage to help resolve the host of issues encountered during this stage include: how fast to integrate; how much disruption will be created, how can disruption be minimised; how people can be assisted to continue focussing on customers, safety, daily operations; and how to best communicate with all stakeholders.
6. Motivate	The final stage of this model is focussed on maximising the long-term value of the combined firm. When major integration activities have been completed and most, if not all, projected synergies have been realised, management's responsibility moves towards the demands of driving the organisation forwards to achieve continuous performance improvements

Stage 3 of an M&A deal, the due diligence stage, has been identified as being a critical stage of the M&A deal process in evaluating whether an organisation should proceed with the deal. As noted above, outcomes from the due diligence stage are used to set negotiating parameters, determine bid prices and provide a basis for initial integration recommendations (Delta Publishing Company, 2013). Furthermore, the due diligence stage plays an important role in determining whether a deal will be successful or not. According to Perry and Herd (Perry and Herd, 2004), the danger is not that an organisation will fail to complete the due diligence stage for a deal, but rather that they will fail to complete the due diligence stage effectively.

1.2. Research problem statement

M&A deals have been increasing exponentially over the past few decades however this rise has been met with a rise in the number of failed deals (Gomes *et al.*, 2013; Marks and Mirvis, 2015). Insufficient due diligence investigations are one of the many factors which contribute towards the high failure rate in M&A transactions (Perry and Herd, 2004). The due diligence stage of an M&A deal is therefore key in ensuring a higher probability of success for a deal.

The key to investigating whether a M&A deal is viable is a comprehensive due diligence (Harvey and Lusch, 1995). Due diligence is a process used to uncover all risks associated with a deal, potential synergies as well as any serious “deal killers” (Galpin and Herndon, 2007). A thorough due diligence process ensures that risks associated with the deal are minimised and that deal makers have key information to set a price for the deal and ensure success once the deal has been completed (Endert and Mammen, 2015).

Considering the importance of the due diligence stage in a M&A deal, there is a distinct gap which exists in the research surrounding the processes which should be followed for a due diligence process to ensure that an effective decision on the deal can be reached. Furthermore, there is no framework or guideline available to comprehensively manage the due diligence process. A lack of understanding in what constitutes a thorough due diligence process means that due diligence investigations are often insufficient (Bruner, 2004). As a consequence, organisations, especially those which are inexperienced in M&A, often face schedule overruns and hire costly advisors and consultants to assist or lead their due diligence investigation.

The fundamental issues that exist in relation to establishing an effective due diligence process are: (i) the lack of a comprehensive and systematic approach to managing the due diligence process, (ii) the constraints facing due diligence processes, and (iii) key factors essential to the success of a due diligence process. This research aims to address these issues and accordingly, will assist in developing a framework which covers the important aspects of a due diligence process (as noted above), whilst also identifying a systematic approach to managing the due diligence process. The framework will be used to inform and construct a management tool to develop and execute an efficient and thorough due diligence process.

1.3. Research aim and objectives

Primarily, this research aims to solve three key issues within the M&A transaction process by focussing on the due diligence stage of the deal. Firstly, this research aims to provide a systematic approach to managing the due diligence process. Secondly, the research aims to address the significant constraints, specifically cost and time, facing the due diligence process. Lastly, this research endeavours to address the risk factors associated with a M&A deal. By addressing these three issues in combination, the research aims to increase the probability of success for a deal by ensuring that the due diligence process is adequate and comprehensive.

Table 2.1 provides an indication of where each objective is addressed in this thesis. The objectives are as follows:

1. Conduct a conceptual literature review to form an understanding of the broader M&A environment and due diligence.
2. Conduct a systematic literature review to identify and refine concepts surrounding M&A due diligence.
3. Develop a conceptual framework for M&A due diligence by carrying out the following sub-objectives:
    - 3.1. Analyse and deconstruct the concepts identified during the systematic literature review.
    - 3.2. Synthesize these concepts into a conceptual framework.
    - 3.3. Evaluate the conceptual framework through feedback from industry experts.
4. Develop a due diligence management tool from the evaluated conceptual framework that can be used to facilitate the M&A due diligence process.

Table 1.2 - Guideline to where each objective is addressed in this document

Objective	**1**	**2**	**3**			**4**
			3.1	3.2	3.3	
Corresponding Chapter	Chapter 3	Chapter 4	Chapter 4 Chapter 5	Chapter 5	Chapter 6	Chapter 7

1.4. Theory and literature analysis

This section provides an overview of the literature applicable to the research. It aims to provide a high-level understanding of the M&A due diligence stage and the supporting literature. Further, this section aims to point out the disjointed approach of available research on the M&A due diligence stage.

The due diligence process itself is multidisciplinary in nature drawing data and knowledge from a broad range of fields. Due diligence provides a deeper understanding about the target organisation in the deal. It confirms the viability of the target organisation in meeting the defined strategic goals of the acquiring organisation as well as unearthing any potential risks in the target organisation or deal. The due diligence process should uncover any issues with the target which will be used in the negotiation phase of the deal issues and aid in planning post-deal integration (Howson, 2003).

The field of due diligence is broad and incorporates knowledge from various fields such as finance and tax, human resources, psychology, marketing, legal, economics and management. This results in a wide variety of disciplines being covered by authors who typically focus their expertise on their field of speciality. It is this factor that makes identifying leading authors difficult (Gomes *et al.*, 2013).

There are certain authors who have contributed quite significantly and extensively to the field of M&A due diligence. These are identified in Table 1.3. These authors are relatively well established making their work a suitable staring point in gaining an understanding of the field.

Table 1.3 - Significant authors and their key works

Author	Key Works
R.F Bruner	• Deals from Hell: M&A lessons that rise above the ashes (Bruner, 2009) • Applied Mergers and Acquisitions (Bruner, 2004)
S Cartwright	• Thirty years of mergers and acquisitions research: Recent advances and future opportunities (Cartwright and Schoenberg, 2006) • Mergers and acquisitions: An update and appraisal (Cartwright, 2005) • Managerial preferences in international merger and acquisition partners revisited: How are they influenced? (Cartwright and Price, 2003) • Methods in M&A – A look at the past and the future to forge a path forward (Cartwright *et al.*, 2012)
J Hagerdoorn	• External sources of innovative capabilities: The preferences for strategic alliances or mergers and acquisitions (Hagedoorn and Duysters, 2002) • Mergers and acquisitions: Their effect on the innovative performance of companies in high-tech industries (Cloodt, Hagedoorn and Van Kranenburg, 2006)
D.N Angwin	• Mergers and acquisitions across European borders: National perspectives on pre-acquisition due diligence and the use of professional advisors (Angwin, 2001) • Critical success factors through the mergers and acquisitions process: revealing pre-and post- M&A connections for improved performance (Gomes *et al.*, 2013)

The preliminary literature analysis confirmed that there are many authors who contribute to a range of topics within the M&A due diligence field. There seems to be no comprehensive methodology or framework applied when it comes to undertaking the due diligence process. Much of the literature speaks to best practices which can be followed however it appears that a lot of the work in this field points to the fact that most organisations manage their own due diligence process. This unstructured method to approaching the due diligence process presents mixed results.

1.5. Research scope and limitations

The scope of this research project revolves around due diligence within the M&A environment. In addition to this, considering that this research took place in South Africa, the framework and tool which have been developed are applicable to the South African context. Further, the individuals who were interviewed as part of the validation process are professionals working within the M&A space in South Africa.

There is no specific industry focus within this research due to the limited body of knowledge on M&A due diligence. Thus, it was deemed to be more appropriate to take a generalist approach to the development of the framework and tool as future work may then expand on this research to develop a framework or tool which is specific to an industry or type of M&A deal.

There are a few limitations that were placed on this research project in order to keep the scope of this research project manageable. The limitations placed on this research are as follows:

- This research does not consider cross-border deals as the complexity involved in these deals would exceed the scope of this research project.
- This research considers the M&A deal process, specifically, the due diligence stage from the position of the acquirer.
- The research will not provide an exhaustive list of investigations which need to be covered for the different areas of due diligence.

1.6. Ethical implications of the study

The validation stage of this project required ethical clearance from the Research and Ethics Committee (REC) of Stellenbosch University. The validation process involves human participation in the form of interviews as well as data from external parties. The researcher endeavoured to create an atmosphere that was conducive to learning to minimise any risks or discomfort to the participants. The ethical clearance for this study was granted by the REC under the Stellenbosch University project number 7455.

The following guidelines were followed to ensure that the ethical aspect of the study was considered at all times:

- Participation in this study was completely voluntary and participants were allowed to withdraw at any time.
- Consent was obtained from each participant before commencing with data collection.
- Participants were not forced to answer any questions which they did not feel comfortable with.
- Information disclosed by participants during the study will remain confidential and stored in a secure environment.
- Personal information of all participants will remain confidential.

The ethics participant consent form which was distributed to all participants of this research study is included in Addendum B.

1.7. Document outline

This document consists of eight chapters. A diagram, as illustrated in Figure 1.1, is presented at the start of each chapter. The purpose of this diagram is to give context to that chapter in regard to two aspects: (1) the research methodology and (2) the part of the project (Parts 1 through 4). These aspects will be expanded on in more detail in Chapter 2.

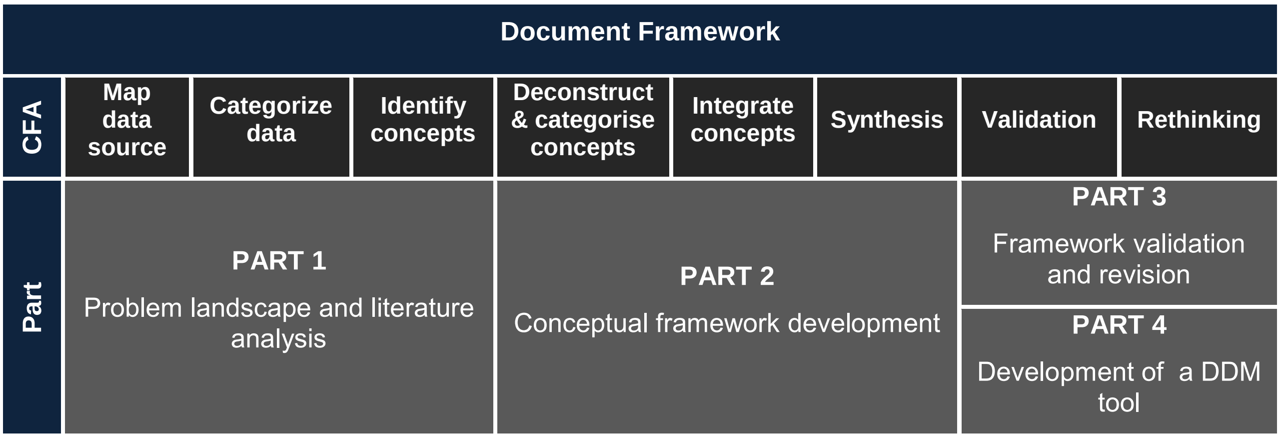


Figure 1.1 - Example of the context diagram presented at the start of each chapter

Chapter 1 - Introduction

This chapter introduces the context of this research project whilst providing an overview of the main concepts of M&A transactions and more specifically the due diligence stage of an M&A transaction. This chapter defines the research problem and aim of the study which leads to the developments of the primary objectives. An overview of project is also provided.

Chapter 2 - Research Methodology

This chapter addresses the main research methodology which is followed in order to meet the objectives of this project. The chosen methodology, Jabareen's (2009) Conceptual Framework Analysis (CFA) which is founded in Grounded Theory is discussed and related to appropriateness for use within this project. In addition, the methodology used to conduct the systematic literature review is also presented. Lastly, the research process in terms of the parts of this project is discussed.

Chapter 3 - Conceptual Literature Review

The conceptual literature review provides an in-depth review on the two dimensions of this project; M&A and due diligence. The M&A landscape is investigated and discussed, focussing on issues such as the history of M&A deals, the various types of M&A deals and the motivation behind embarking on these deals. The M&A process is also investigated in detail. The due diligence stage of the M&A process is introduced and an in-depth analysis thereof follows. This chapter assists in setting up the systematic literature review of Chapter 4.

Chapter 4 - Systematic Literature Review

The systematic literature review is carried out on the due diligence stage of M&A transactions. This chapter forms the basis for uncovering the main principles and concepts of M&A due diligence which informs the development of the conceptual framework. Key literary works are identified through a comprehensive process and these works are analysed in depth to uncover the main concepts and principles.

Chapter 5 - Framework Development

This chapter provides an overview of the practical application of Jabareen's (2009) CFA method. Chapter 5 follows the development of the conceptual framework based on the research compiled in Chapter 3 and Chapter 4.

Chapter 6 - Framework Validation

This chapter follows the validation process for the conceptual framework developed in Chapter 5. Feedback from semi-structured interviews that were conducted with professionals within the M&A due diligence field is summarised and presented. Lastly, the final validated conceptual framework is presented.

Chapter 7 - Due Diligence Management Tool

The validated conceptual framework is used to inform the development of the due diligence management (DDM) tool. This tool is then applied to a case study to demonstrate and validate its usefulness in application.

Chapter 8 - Conclusion and Recommendations

Chapter 8 provides a summary for each part of this research project. The research objectives are presented individually and a determination is given on whether each objective was met by the outcomes of this study. The limitations of the study are also discussed. Lastly, recommendations for future work are given in order to expand on the research conducted and presented in this project.

1.8. Chapter 1: Conclusion

Chapter 1 presents an introduction into the research study. The major concepts and principles of the M&A due diligence stage is presented, along with the primary issues facing this field of research, and which inform the foundation for this research project. This is summarised by the research problem statement. The research aim as well as the objectives are presented and discussed. The research scope and limitations are clearly defined in the chapter. Lastly, the document outline is presented to navigate the reader through the remainder of the document. The next chapter, Chapter 2, will focus on the research methodology used for this research study.

Chapter 2 – Research Methodology

Chapter 2 provides an overview and explanation of the methodologies used to develop a conceptual framework and DDM tool. This chapter begins with an explanation of the research design following which the Grounded Theory (GT) approach is introduced as the groundwork theory for the development of the conceptual framework and DDM tool. Grounded Theory informs the Conceptual Framework Analysis (CFA) methodology which is utilised as the base methodology for this research project. The approach employed to undertake the systematic literature review in Chapter 4 is discussed along with the validation procedure that is used in Chapter 6 and Chapter 7 for the conceptual framework and DDM tool respectively. The major outcomes of Chapter 2 have been summarised in Figure 2.1.

Key Outcomes	Outline the research process utilised in this research study
	Introduce and explain GT methodology
	Introduce and explain CFA methodology
	Introduce and explain the systematic literature review process
	Introduce and explain the validation procedure
	Describe the research process followed and how CFA fits into the process

Figure 2.1 - Key Outcomes of Chapter 2

2.1. Research method

The research problem is met by defining a clear research aim and objectives. In order to fulfil the research objectives, a solid understanding of the literature surrounding M&A and due diligence is necessary. In order to validate the identified and conceptualised theory, fieldwork (in the form of interviews and a case study) is required.

This research project involved the development of a conceptual framework and DDM tool for a study which examines the due diligence process of M&A transactions. As noted above, this aim of this research study is to increase the probability of success for a deal by ensuring that the due diligence process is adequate and comprehensive.

It is crucial to understand and document the results of the study throughout the research process. This ensures that the research conducted and results produced are of a high quality and standard. The findings from this research is disseminated through publications.

The literature analysis conducted in Chapter 1 indicates that qualitative analysis can be used for the development of the conceptual framework and by extension the DDM tool. The foundation for the conceptual framework is based on a conceptual literature review (see Chapter 3) and systematic literature review (see Chapter 4). The conceptual framework is then validated through a series of semi-structured interviews. The validated conceptual framework is used as the basis for the DDM tool that is developed in Chapter 7. Figure 2.2 provides a visual representation of the research method.

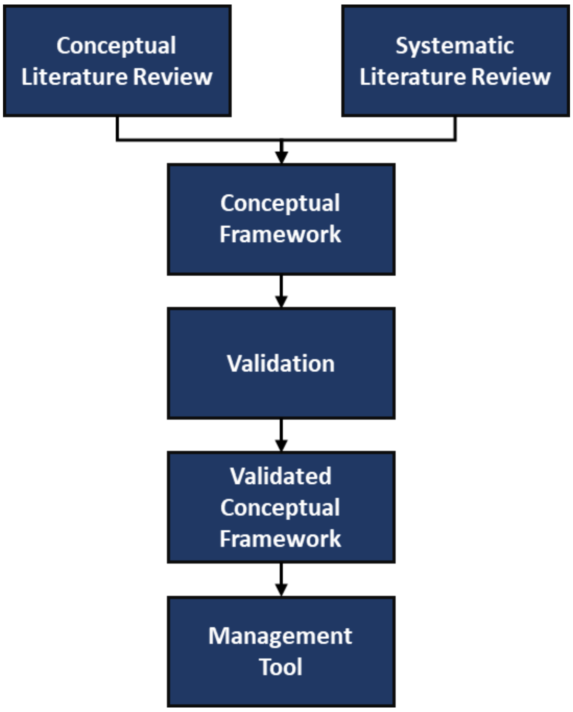


Figure 2.2 - The research process followed in this study

2.2. Grounded theory methodology

Grounded theory methodology (GT) is a systematic methodology for developing theories or frameworks through methodical gathering and analysis of data (Strauss and Corbin, 1994). Theories may either be developed from the data or, in cases where grounded theories exist within the area of investigation, these theories may be expanded upon or modified (Strauss and Corbin, 1994). GT uses inductive data as a basis and utilises an iterative strategy of data and analysis to build on this data. Comparative methods keeps the researcher involved and interactive with the data and emerging analysis (Charmaz, 2014).

Glaser & Strauss (1967) were the first to introduce GT. Although GT has not changed in form since its introduction, Corbin and Strauss (1990) has significantly expanded on the methodology. GT combines the research process with theoretical development. A significant contribution of GT is to provide a rigorous process for researchers to check, refine and develop their ideas and intuitions about their data.

GT has several characteristics which set it apart from other research methods. There are several phases that make up GT. These phases are illustrated in Figure 2.3 below. The data collection phase is performed in conjunction with the analysis of the data. In doing so, the researcher is able to avoid the common issue of collecting volumes of general and unfocused data that overwhelms the researcher and which may not lead to significant findings (Charmaz, 1996).

Another characteristic which differentiates GT is the creation of analytic codes and categories which are developed from the data and not from preconceived concepts or hypotheses. This is a central characteristic in GT as it forces the researcher to attend closely to what happens in the empirical world he or she studies (Charmaz, 1996).

One of the primary differentiating factors of GT, when compared to other qualitative research methods, is that GT focuses on theory development rather than the consolidation of different perspectives (Strauss and Corbin, 1994). To ensure functional theory development, there are general GT procedures which can be used, such as, systematic coding procedures and guidelines, concept-relating inquiries and theoretical sampling for attaining conceptual variation and integration (Strauss and Corbin, 1994). These guidelines form the basis for the methodology of the systematic literature review.

GT has been used extensively as the foundation of many conceptual framework development methodologies. Jabareen's (2009) conceptual framework analysis (CFA) has been identified as a suitable method for constructing the conceptual framework in this thesis. CFA uses GT as its foundation. Jabareen (2009) explains that GT is appropriate for conceptual framework building due to its characteristics, specifically the fact that it incorporates coding paradigms to ensure conceptual development (Strauss, 1987).

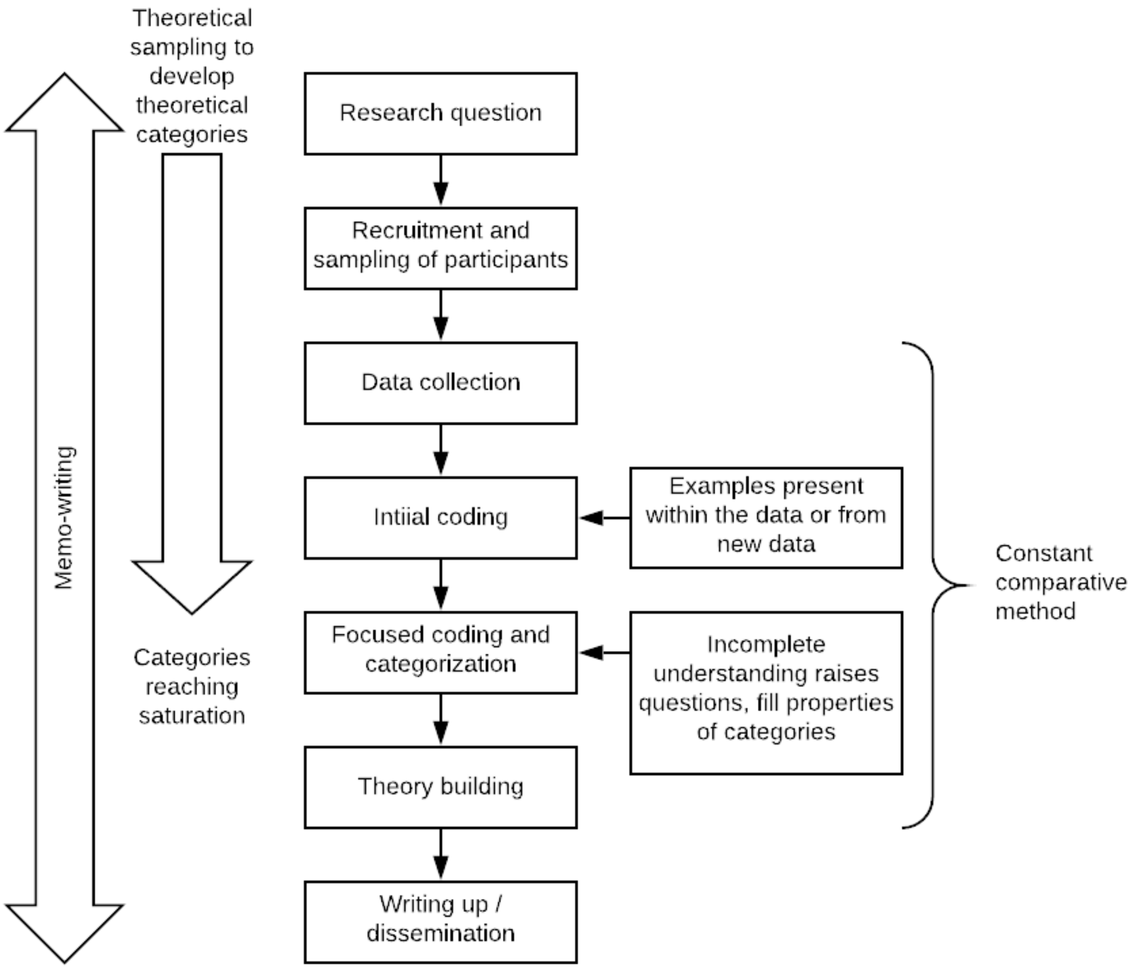


Figure 2.3 - Visual representation of GT, adapted from Tweed and Charmaz (2012)

2.3. Conceptual framework development methodology

A conceptual framework consists of a network of interlinked concepts. This network of concepts collectively provides an understanding of a phenomenon or phenomena. Jabareen's (2009) CFA method, which is founded in GT, provides a systematic approach towards the development of a conceptual framework.

CFA aims to generate, identify and trace the concepts of the subject under investigation. CFA endeavours to develop the concepts further. Each concept has its own attributes, characteristics, assumptions, limitations, distinct perspectives and specific function within the conceptual framework. These concepts expound on the subject under investigation represented by the concepts themselves (Jabareen, 2009)

The CFA methodology is made up of eight distinct phases. These phases are discussed in more detail below.

Phase 1: Mapping the selected data sources

The first phase involves mapping the spectrum of multidisciplinary literature for the phenomenon under investigation. Sources of data, for example include, empirical data and practices, as well as publication types should be identified. This phase is initiated by an extensive review of the multidisciplinary texts. Jabareen (2009) also recommends carrying out initial interviews with specialists, practitioners and scholars from different disciplines whose work concentrates on the subject.

Phase 2: Extensive reading and categorizing of the selected data

The objective of this phase is to read and categorize the selected data. The data should be categorized by discipline, representative power within each discipline and by scale of importance. The intention of this process is to maximise the effectiveness of the inquiry and ensure effective representation of each discipline (Jabareen, 2009). This phase is in line with the GT methodology which emphasizes the categorization of data.

Phase 3: Identifying and naming concepts

This phase involves identifying and coding concepts through reading and rereading (Corbin & Strauss, 1990; Glaser & Strauss, 1967). This phase allows concepts to be developed directly from the literature. The concepts identified and developed often compete with and contradict each other (Jabareen, 2009).

Phase 4: Deconstructing and categorizing the concepts

In this phase, each concept is deconstructed in order to identify its main attributes, characteristics, assumptions and role. Concepts are then organized and categorized according to their features and ontological, epistemological and methodological role (Jabareen, 2009).

Phase 5: Integrating concepts

In this phase, concepts which have similarities are integrated or grouped together into one new concept. The major outcome of this phase is to drastically reduce the number of concepts and group these concepts according to the main characteristics of the subject (Jabareen, 2009).

Phase 6: Synthesis, resynthesis and making it all make sense

This phase involves synthesizing concepts into a conceptual framework. The process of this phase is iterative – specifically, it involves the synthesis and resynthesis of concepts until a general framework is created (Jabareen, 2009).

Phase 7: Validating the conceptual framework

This phase ensures that the proposed framework makes sense to not only the researcher, but also to other scholars and practitioners. Validation of the framework is completed through feedback obtained from ‘outsiders’ or specialists within the field of study (Jabareen, 2009).

Phase 8: Rethinking the conceptual framework

Using the feedback obtained from the previous phase, changes to the framework should be made according to new insights, comments or literature.

2.4.1. Motivation for using CFA

The field of M&A is complex and involves a wide range of management disciplines. The field covers financial, strategic, behavioural, operational and cross-cultural aspects (Cartwright and Schoenberg, 2006). Financial and market studies dominate M&A literature (Cartwright, 2005), therefore there is a need for a multidisciplinary approach to research within the M&A field.

The primary reason why the CFA method is adopted is due to its specific characteristic of building conceptual frameworks for multidisciplinary phenomena. Furthermore, the principle features of the CFA method correspond to the features of this study as summarised in Table 2.1.

Table 2.1 - Comparison between primary features of conceptual frameworks and the features of this study (Jabareen, 2009)

Primary Features Of Conceptual Frameworks	Related Feature Of This Study
A conceptual framework is a construct in which each concept plays a role.	Due diligence is a wide-ranging process and there are numerous factors which constitute the process and can influence the success or failure of a deal.
Conceptual frameworks provide understanding rather than offering a theoretical explanation.	A thorough understanding of due diligence is required in order to develop a useful framework.
Conceptual frameworks do not enable the prediction of an outcome and are indeterminist in nature.	The framework which is developed seeks to uncover and understand the various factors around due diligence and how they impact on the success of a transaction.
Conceptual frameworks can be formulated through a qualitative analysis process.	The framework is developed through a systematic literature review which uncovers key concepts surrounding due diligence.
Conceptual frameworks are developed on sources of data which consists of many discipline-oriented theories.	Due diligence is multidisciplinary in nature therefore the framework should be developed using a wide range sources with different theories.

A systematic literature review was identified as an appropriate method in which to address the first four phases of the CFA method. The methodology used for the systematic literature review is discussed in the next section.

2.4. Systematic literature review methodology

The main purpose of the systematic review conducted in this research project was to identify the key concepts of M&A due diligence.

A systematic literature review aims to collect all empirical evidence that meet a set of predefined criteria required for the study in question to answer a research question or problem. A rigorous search strategy is employed to identify, evaluate and synthesise data from a selection of studies (Higgins and Green, 2008; Uman, 2011). The result of a systematic literature review is a just evaluation of the area of research through a transparent and rigorous process. The review process should aim to be replicable and unbiased in its approach (Petticrew and Roberts, 2006; Kitchenham and Charters, 2007). The review should uncover any areas of uncertainty, identify any gaps within the body research and establish a pathway for future research (Kitchenham and Charters, 2007).

The methodology selected for conducting the systematic literature review is based on the three stage model for systematic reviews (Tranfield, Denyer and Smart, 2003). The three stages consist of planning, executing and reporting. The stages of this model are explained in more detail in Figure 2.4. Each of these stages will be addressed in Chapter 4.

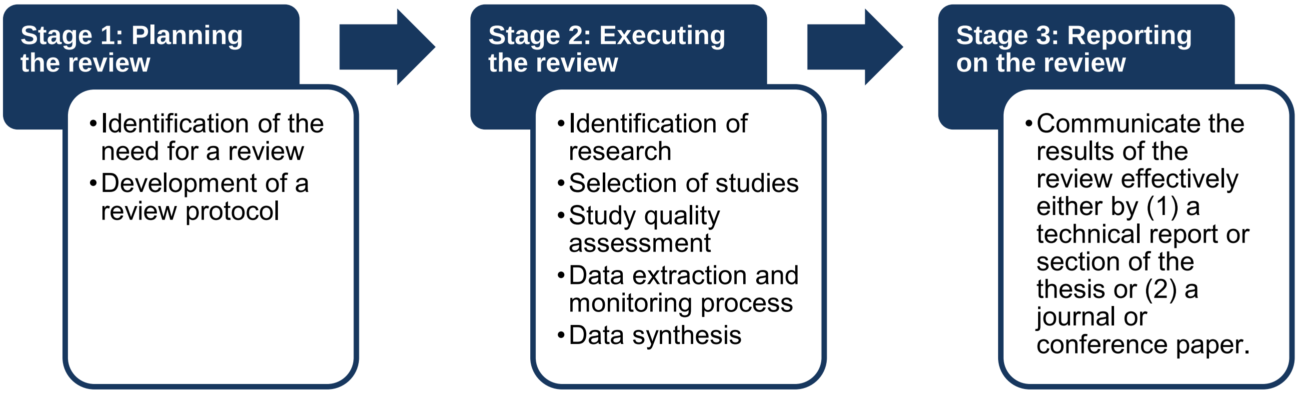


Figure 2.4 - Methodology for systematic literature review (Tranfield, Denyer and Smart, 2003)

Stages 2 and 3 of the systematic literature review methodology are in line with the first four phases of Jabareen's (2009) CFA method. The methodology for conducting the systematic literature review is extremely thorough and ensures that a solid foundation for the conceptual framework is provided (Tranfield, Denyer and Smart, 2003; Jabareen, 2009). The subsequent phase of CFA includes the development of a conceptual framework. Phases 7 and 8 covers the iterative process of validating and rethinking the framework. The next section covers the methodology followed for validating the conceptual framework and DDM tool.

2.5. Validation methodology

Phases 7 and 8 of the CFA method prescribes the validation and rethinking of the conceptual framework. The concept of validity is generally associated with quantitative research (Golafshani, 2003). Within qualitative research, validity refers to the accuracy of the findings (2009). Since the nature of this research is primarily qualitative in nature, it is appropriate to use qualitative validation techniques to validate the conceptual framework and DDM tool.

There are two methods of validation techniques employed in this research study to validate and rethink the conceptual framework and DDM tool. Semi-structured interviews as well as a case study has been identified as appropriate methods in which to validate the conceptual framework and DDM tool respectively. These two methods will be discussed in more detail in the remainder of this section.

2.5.1. Semi-structured interviews

Conducting interviews is a useful method to build understanding. There are generally three types of interviews; (i) structured; (ii) semi-structured; or (iii) unstructured (Fontana and Frey, 2005; Hove and Anda, 2005). A description of each interview type is provided in Table 2.2.

Table 2.2 - The three types of interviews

Interview Type	Description	References
Structured	The aim of structured interviews is to collect precise data which can be easily coded and falls within pre-determined categories. The researcher has complete control during the interview process over the themes covered and the interview format.	(Fontana and Frey, 2005) (Kajornboon, 2005)
Semi-structured	The interview format is more open than structured interviews and allow for new ideas to be explored based on the interviewee's responses to certain pre-determined questions. The researcher can probe deeper into specific themes or topics.	(Creswell, 2009) (Kajornboon, 2005)

Unstructured	Open-ended, less formal, exploratory and without prior categorisation which can limit the interview data. There are no restrictions on questions and topics. This interview type is most useful when little information is known on the topic.	(Kajornboon, 2005)

For the purposes of this study, the researcher decided to use the semi-structured type of interview. The reason for this selection is that semi-structured interviews allows for further exploration of the field of research to understand topics or themes that may not be comprehensively described within the available literature. Further, semi-structured interviews create an environment where new perspectives or understanding on topics may be explored (Cohen and Crabtree, 2006)

Creswell (2009) suggests developing an interview protocol which should include the interview information, the standard instructions that should be followed for all interviews and the questions to be asked. The interviews should be recorded and subsequently transcribed to implement coding strategies on the raw data.

Rabionet (2011) developed a six-stage process for conducting semi-structured interviews. This process is used in this research study to undertake the semi-structured interviews. The stages of this semi-structured interview process is explained in Table 2.3.

Table 2.3 - Six-stage process for conducting interviews (Rabionet, 2011)

Stage	Description
1. Select interview type	Choose between structured, semi-structured or unstructured interviews.
2. Establish ethical guidelines	Investigate any possible consent, confidentiality and protection issues regarding the interview.
3. Craft interview protocol	Gather information regarding the context of the interviews and develop questions and follow-up probes.
4. Conduct interviews	Conduct and record the interview.
5. Analyse the interviews	Perform an analysis on the interview data collected, code the data.
6. Report the findings	Present the results of the interview data.

2.5.2. Case study

The aim of a case study is to investigate the “why” and “how” of a phenomenon and can be exploratory, explanatory or evaluative (Yin, 2012). Exploratory case studies usually precede social research. Explanatory case studies are generally used in causal investigations. Evaluative case studies are used to assess or evaluate some type of initiative (Yin, 2012).

Through the implementation of a case study, a complex phenomenon can be investigated within its natural context by obtaining data from a variety of sources (Baxter and Jack, 2008). Case study research generally includes close collaboration with participants and an interest in their stories, opinions and views of reality (Baxter and Jack, 2008).

Yin (2012) suggests that clear boundaries for the case study should be determined prior to the commencement of the case study to prevent the case study from becoming too large. A large case study compromises its ability to meet its initial goals.

The researcher elected to utilise an evaluative case study method since the aim of the case study is to test the applicability of the DDM tool in a real-world context. A four-step process proposed by

Tellis (1997) was selected as the methodology for conducting the case study. The four-step process is explained in Table 2.4.

Table 2.4 - Four-step process for conducting a case study (Tellis, 1997)

Case Study Step	Description
1. Design the case study protocol	Obtain background information on the case, develop a case study protocol to review the case comprehensively.
2. Conduct the case study	Prepare data for collection, conduct case study interviews.
3. Analyse the case study evidence	Analyse the interviews and data collected and apply this to the phenomenon being investigated.
4. Develop conclusions	Confirm if the desired outcome for the phenomenon being investigated was achieved. Consider any implications for the phenomenon based on the results of the case study.

2.6. Research process

This section describes how the CFA process is applied to this research. The phases of the CFA process are grouped into distinct parts. Figure 2.5 illustrates the research design format and indicates where each phase of the CFA method is addressed.

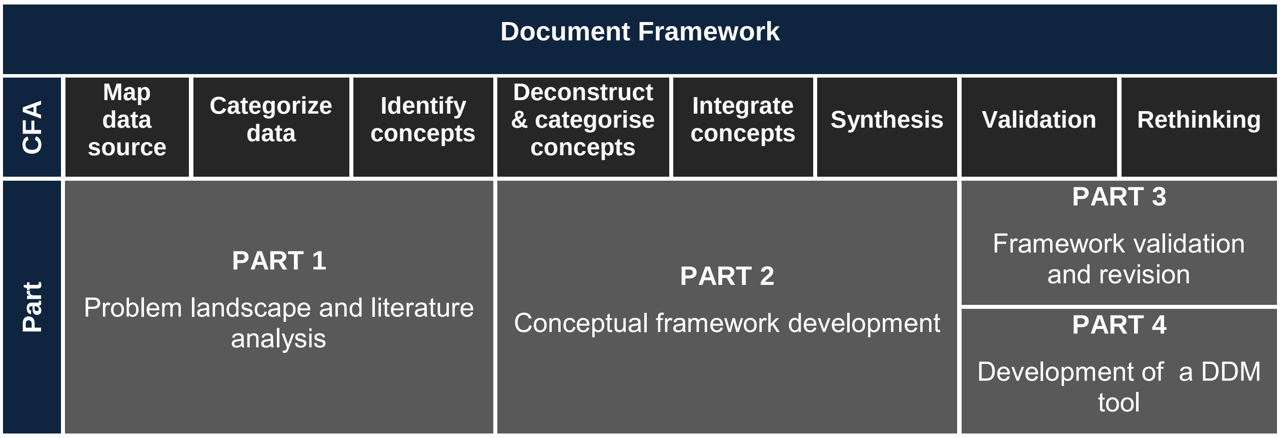


Figure 2.5 - Structure of the research process

2.6.1. Part 1: Problem landscape and literature analysis

In this part of the research process, the first three phases of Jabareen's CFA are addressed. The problem landscape is examined to formulate the problem statement and create the research questions to be addressed. Following from this, a literature analysis is performed to formulate a thorough understanding of the M&A field. M&A due diligence literature is analysed to identify the concepts surrounding the different areas, success factors, risk factors, considerations, best practices and strategies in due diligence. Figure 2.6 provides a visualisation of which chapters contribute to part 1 of the research process as well as which phases of CFA each chapter covers.

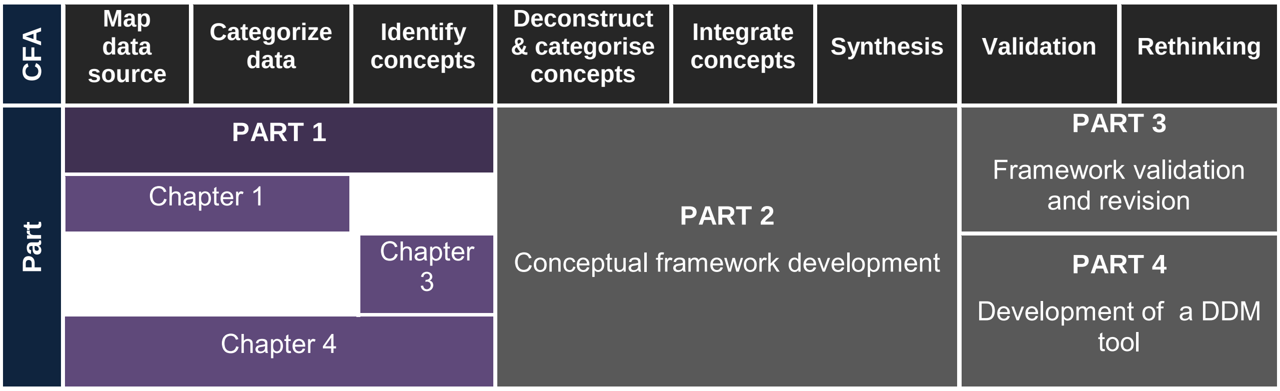


Figure 2.6 - Part 1 of the research process

The chapters which contribute to the completion of part 1 of the research process are elaborated upon below.

Chapter 1: In this chapter, the rationale of the research, problem statement, research objectives and questions as well as the scope of the project are addressed. The outcomes of this chapter help to focus the literature analysis chapters in terms of what data to include or exclude.

Chapter 2: This chapter looks at the chosen study methodology. The CFA process is discussed and its subsequent application to the research process is described. The approach used in the framework development are discussed.

Chapter 3: This chapter addresses the conceptual review of the literature. An analysis of the M&A landscape is conducted to provide an overview of the field. This is followed by a comprehensive review of the field of due diligence in M&A. The review is focussed by referring to the problem statement, research objectives and research questions. This review aids in providing an understanding of the factors which are coded during the systematic review process in the following chapter.

Chapter 4: This chapter captures the systematic literature review process that is carried out. The results of the systematic review are discussed in this chapter. The systematic review makes use of multidisciplinary literature to gain a broad perspective of the concepts identified. The primary aim of the systematic review is to gain an understanding of the various factors influencing the due diligence process by identifying the steps and concepts in the literature.

2.6.2. Part 2: Conceptual framework development

Part 2 of the research process is comprised wholly of the framework development phase. The framework is created from the basis of the work completed in part 1. The concepts identified in the previous stage are deconstructed to identify its main attributes, characteristics, assumptions and role. The concepts are then organized and categorized according to their features and ontological, epistemological and methodological role (Jabareen, 2009). As can be seen from Figure 2.7, Chapter 5 dominates phases four to six of the CFA process.

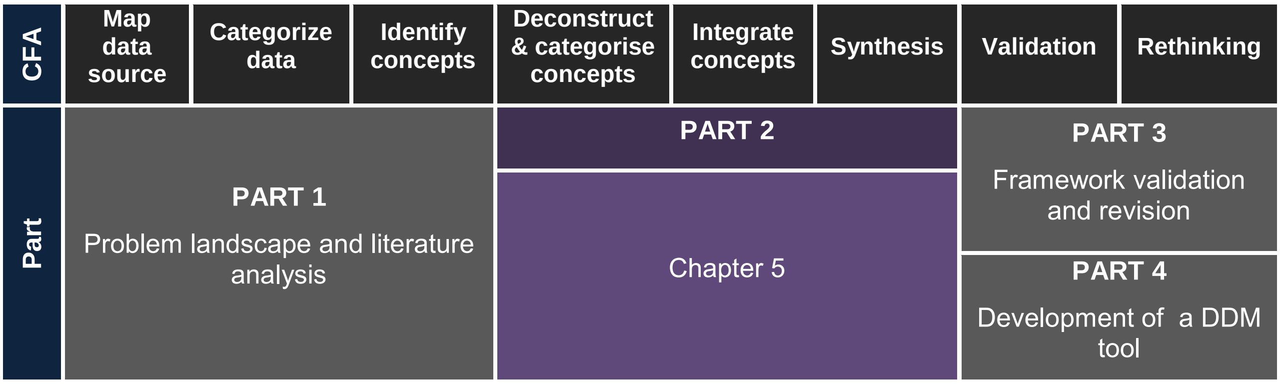


Figure 2.7 - Part 2 of the research process

Following Phase 5 of the CFA method, concepts are grouped together or integrated according to their similarities. The concepts are categorized according to the following factors:

- The area of due diligence the concept falls under
- The steps in the due diligence process
- The best practices of due diligence
- The success factors or risk factors for due diligence

The outcome of this process is that the number of concepts to be included in the framework are reduced considerably.

2.6.3. Part 3: Framework validation and revision

In part three of the research process the conceptual framework is validated through fieldwork. This fieldwork is in the form of semi-structured interviews with professionals working within the space of M&A due diligence. The detailed process of the semi-structured interviews along with the results thereof is documented in Chapter 6. Figure 2.8 illustrates where part 3 along with Chapter 6 fits into the research process.

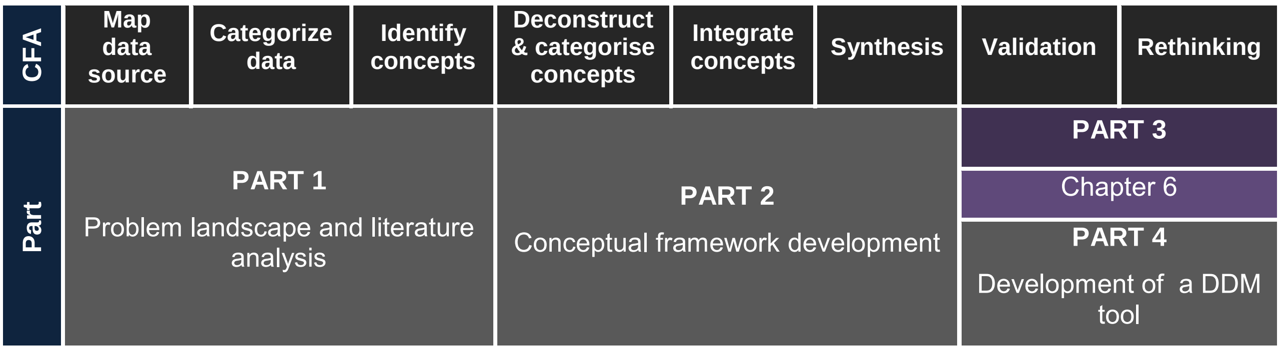


Figure 2.8 - Part 3 of the research process

New concepts regarding M&A due diligence along with modifications to the existing concepts within the framework are identified through the interview process. The necessary changes, based on the feedback and recommendations, are made to original framework and the validated conceptual framework is presented at the end of Chapter 6

2.6.4. Part 4: Development of a due diligence management tool

Part 4 of the research process focuses on the development of the DDM tool. The DDM tool is developed from three elements: (1) the conceptual literature review, (2) the validated conceptual framework, and (3) the feedback from the semi-structured interviews. Chapter 7 covers the development of the DDM tool. The DDM tool is also applied to a case study to investigate and demonstrate its effectiveness. The feedback from the case study is used to enhance the DDM tool.

Part 4 of the research process also includes the future work and recommendations of this research project. This is presented in Chapter 8. An overview of where part 4 fits into the overall research process is shown in Figure 2.9 .

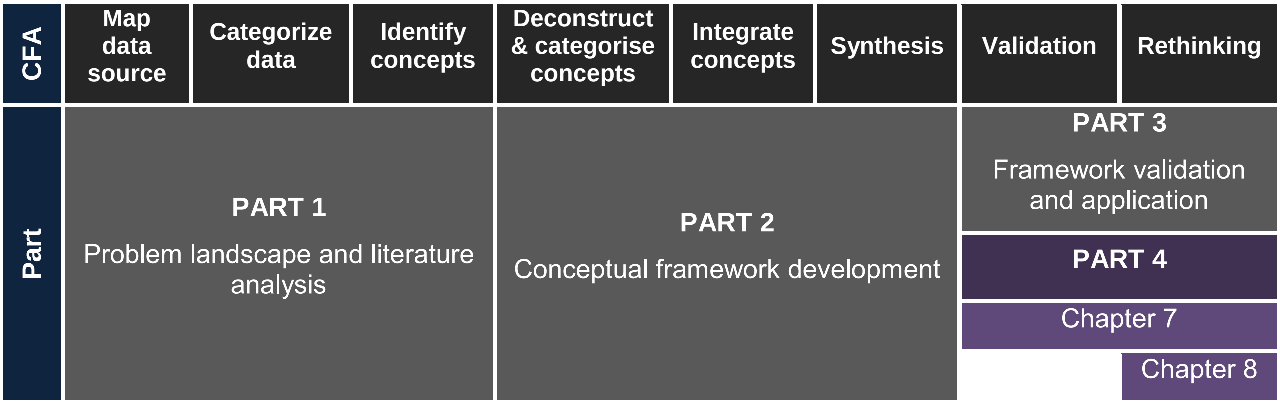
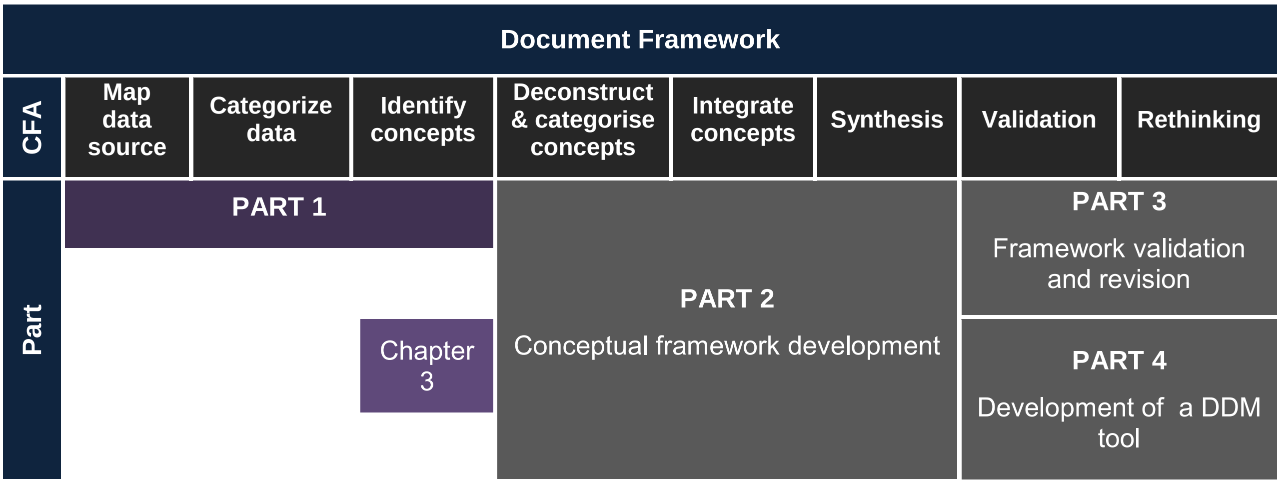


Figure 2.9 - Part 4 of the research process

2.7. Chapter 2: Conclusion

The methodologies utilised in this study are explained in this chapter. GT and CFA are introduced and discussed to illustrate the relationship between these two methodologies. CFA is selected to assist in the development of the conceptual framework and the DDM tool through a systematic and comprehensive process. The systematic literature review and validation methodologies are also presented in this chapter. Finally, the research design is used to work towards a conceptual framework and DDM tool is presented. Chapter 3 covers the conceptual literature review which looks at the M&A landscape and process whilst also providing insight and analysis into the due diligence stage of an M&A transaction.

Chapter 3 – Conceptual Literature Review



This chapter addresses the conceptual review of the literature focussing on the M&A landscape and process and then more specifically the due diligence stage of a M&A transaction. Figure 3.1 summarises the key outcomes of Chapter 3. This chapter address phases 2 and 3 of the CFA method, which include the categorisation of data as well as the identification of concepts respectively.

An analysis of the M&A landscape is conducted to provide an overview of the field. This is followed by a comprehensive review of due diligence processes in M&A. This review is focussed by referring to the problem statement, research aim and research objectives. The review aids in providing an understanding of the factors that are coded during the systematic review process in the following chapter.

Key Outcomes	Investigate and discuss the M&A landscape
	Examine the M&A process
	Define due diligence
	Investigate and discuss the due diligence stage of a M&A transaction
	Investigate the Integrated Due Diligence Approach

Figure 3.1 - Key Outcomes of Chapter 3

3.1. The M&A landscape

The M&A landscape is broad and diverse. The complicated field has garnered the interest and research of a wide variety of management disciplines surrounding the financial, strategic, behavioural, operational and cross-cultural facets of this high-risk activity.

It is widely acknowledged within the M&A research sphere, that there is a high failure rate associated with M&A transactions. Cartwright and Cooper (1995), Child *et al.* (2001), and Koetter (2005) all concur that despite the motivation for deals to succeed, their research shows that, globally, only about 50% actually do succeed. Consequently, this shows that about half of all M&A deals are bound to fail. Further, researchers concluded that only 20-30% percent of the companies investigated in a meta-analysis of 128 M&A studies created any significant value above the annual cost of capital (Bruner, 2002).

Koi-Akrofi (2016) explains that a failed merger can be understood in two ways:

- Qualitatively: Did the deal meet the intended motivations which led to the deal taking place in the first place?
- Quantitatively: Did the deal deliver increased financial value which was promised to shareholders before the deal took place or did shareholder value deteriorate following the deal?

In academic literature, there are three major avenues that discuss the causes of M&A failure. The first avenue emphasizes “strategic fit” which looks at the link between the M&A outcome and the strategic patterns of the combining firms (Elbanna and Child, 2007).

The second avenue is the “organisational fit.” This avenue of literature has the aim of understanding how organisational and human resources (HR) aspects of an acquisition influence the performance of a M&A transaction. This avenue of literature is grounded in the HR, organisational behaviour and strategic management disciplines (Schoenberg, 2000; Cartwright and Schoenberg, 2006).

The third and final avenue shares the view that “the whole process must be understood to understand the parts” (Haspeslagh and Jemison, 1991). This final view places more emphasis on the entire M&A process itself. This avenue can be seen as a move towards examining the drivers of an outcome rather than examining the outcome itself. It is therefore important to review the complete M&A process.

The remainder of this section examines some of the important factors in understanding the M&A landscape.

3.1.1. M&A activity

In gaining a clear picture of the M&A landscape, it is necessary to look to the past to examine the evolution of M&A activity. M&A activity is comparable to the economic environment in that it occurs in cycles, with peaks in activity that are followed by crashes. In this sense, M&A activity bears resemblance to the volatility of stock markets (Ribeiro, 2010). Bruner (2004) suggests two methods to consider deal activity; the first is in terms of the number of transactions and the second is in terms of the transactions’ aggregate dollar value. The cyclical nature of M&A activity is exposed when analysing deal activity according to the methods suggested above. The intense periods of M&A activity or peaks in activity are referred to as ‘waves.’

When considering historical M&A activity, it is useful to analyse deals in the USA. The US accounted for a large share of all M&A deals throughout much of the 19th and 20th centuries, both in terms of the number of transactions and value of the deals. Consequently, much of the research available on M&A activity is based on US deals (Gaughan, 2002; Gregoriou and Renneboog, 2007). Therefore, to exemplify the cyclical nature of M&A activity, US deals will be used.

Research in the field of M&A activity identify six major M&A waves in the US since the late 19th century to the present day (Gaughan, 2002; Cassiman and Colombo, 2006; Gregoriou and Renneboog, 2007). The focus of much of this research is on the first five waves with the most recent wave not being as well documented. The exact timeframe of each wave differs between each author according to the datasets which were used to analyse the wave, however there is consensus on the period over which each wave occurred.

Numerous researchers have attempted to uncover the reasons behind the occurrence of these waves. The wave-pattern amongst the different waves bear similarity in that each wave has a prominent peak of activity. This is where most of the similarities between the waves end. Each wave of M&A activity had a different driver depending on the entrepreneurial and economic environment of that time. Every wave has different characteristics and were driven by distinct reasons (Ribeiro, 2010). Areas in which these waves differ the most include the industry focus, type of transaction, the presence or absence of hostile bids, industry size and deal size. A review of each wave follows.

Wave 1: 1893 - 1904

This wave of merger activity began just after the depression that ended in 1896 (Bruner, 2011). The recovery of the economy and development of financial markets during this time assisted in driving this first wave. This period was characterized by horizontal mergers which took place in the steel, oil and basic manufacturing industries (Ribeiro, 2010). Fligstein (1990) explains that between 1895 and 1904, of all the mergers completed, 78% were horizontal mergers, 10% were horizontal and vertical mergers, and 12% were vertical mergers. Notable firms which emerged from this first wave include DuPont, General Electric, Eastman Kodak and US Steel (Bruner, 2011). This period was notable for supporting the creation of monopolies thereby creating the first common market. The turning point in this period of merger activity occurred in 1902 with President Roosevelt's decision to enforce the Sherman Act in the Northern Securities case. Horizontal mergers among large competitors were restricted by the Supreme Court's decision in 1904 (Bruner, 2011). This effectively brought an end to this first wave of merger activity.

Wave 2: 1918 - 1929

The second wave of activity was characterized by vertical mergers. Vertical mergers allowed companies to integrate backwards into their suppliers and forward into distribution which effectively meant greater control for manufacturers over their entire supply chain and distribution channels (Ribeiro, 2010; Bruner, 2011). The second wave led to the creation of oligopolies due to the consolidation of industries into large conglomerates (Cassiman and Colombo, 2006; Ribeiro, 2010). This created huge concern and led to the US government increasing its anti-trust (anti-competitive) legislation (Cassiman and Colombo, 2006; Bruner, 2011). A surge in stock market prices after the recession which ended in 1923 coincided with the beginnings of this merger wave (Bruner, 2011). The second wave came to an end with the stock market crash in 1929 (Ribeiro, 2010).

Wave 3: 1958 – 1971

The third wave of M&A activity was the result of diversification which led to a spike in conglomerate mergers. This was in response to intensified anti-trust enforcement to limit horizontal mergers (Bruner, 2011) as well as a slowdown in defence expenditure due to the reduction in post-war efforts (Ribeiro, 2010). During this period, a large number of smaller forms in non-related sectors or industries were bought by larger firms (Cassiman and Colombo, 2006). Merger activity during this period was especially focussed on the natural resources (oil, forestry) and aerospace sectors (Ribeiro, 2010; Bruner, 2011). Gregoriou & Renneboog (2007) provide additional reasons for the diversification that occurred which include less well developed external capital markets, labour inefficiencies as well as a range of economic, social and technological changes.

Wave 4: 1978 - 1989

The fourth wave of merger activity was characterized by larger deals which involved more hostile takeovers, leveraged buyouts and going-private transactions (Cassiman and Colombo, 2006; Bruner, 2011). This wave came about as a result of inefficiencies created by the increase in diversification in Wave 3 (Gregoriou and Renneboog, 2007; Ribeiro, 2010). The drivers behind this wave included relaxed anti-trust regulations, more efficient capital markets, improved shareholder control and new financing instruments, especially junk bonds (Cassiman and Colombo, 2006; Gregoriou and Renneboog, 2007). Almost all sectors of the US economy were affected by this wave of merger activity as many companies saw the benefits of de-diversifying and refocussing on their core business ideals (Blair, 1993; Bruner, 2011). Many firms who appeared to be inefficient or performing poorly were vulnerable to hostile raiders (Gregoriou and Renneboog, 2007; Ribeiro, 2010). This wave was further characterized by heightened cross-border transactions, increasingly complex transactions, and a period of falling interest rates and rising stock prices (Cassiman and Colombo, 2006; Bruner, 2011).

Wave 5: 1993 - 2000

This fifth wave of merger activity was extraordinary. This wave of activity recorded unprecedented levels in deal value and deal volume (Gregoriou and Renneboog, 2007). This growth was supported by a favourable economic environment as well as euphoria in the market resulting a megamergers the likes of which had not been seen before (Ribeiro, 2010). This wave initiated a paradigm shift from old rules regarding strategy, size and deal design to new rules, specifically the emergence of strategic buyers who sought out mergers for similar companies and where synergy value could be created and harvested (Bruner, 2011). Another prominent characteristic of this wave was the sharp increase in cross-border transactions which was driven by the increase in deregulation and privatization (Gregoriou and Renneboog, 2007). Certain industries such as banking, health care, defence and technology which benefitted from deregulation, globalisation and technological advancements also experienced heightened merger activity during this period (Ribeiro, 2010; Bruner, 2011).

Wave 6: 2003 - 2009

The most recent wave occurred on the back of the 2001 recession where there was a resurgence in economic growth and an influx of dollars into the market following a stimulus from the U.S Federal Reserve (Cordeiro, 2014). Similar to the previous wave, the wave of activity was focussed on cross-border and financial transactions (Dieudonne, Cretin and Bouacha, 2015). Roughly a quarter of the takeovers were by private equity buyers who were driven by the ease of accessibility to credit that businesses were readied to give at low interest rates (Malik *et al.*, 2014). Alexandridis *et al.* (2012) confirms that deals financed by cash were significantly reduced during this merger wave. The number of M&A transactions increased in the market environment with high liquidity and cheap capital however this led to misrepresentations, particularly in the prices of target companies which resulted in these companies being overvalued due to heightened speculation and the lack of perceived risks (Cordeiro, 2014). Consequently, credit was rapidly depleted leading to a recession thereby closing off this wave of activity (Cordeiro, 2014).

3.1.2. Types of mergers

There are three categories of mergers; horizontal, vertical or conglomerate (Gaughan, 2002). Each of these types of mergers are discussed in detail below.

Horizontal merger

A horizontal merger occurs when two competitors combine or when one firm acquires another firm in the same sector or industry (Gaughan, 2002; Alam and Khan, 2014). This type of integration takes place when two companies, which are involved in the same or similar products or services, merge to increase their combined market share (Alam and Khan, 2014).

When considering an acquisition strategy based on horizontal integration, a company is unlikely to focus on a specific target. Rather, the company would take a view of the business or businesses they wish to acquire, and consider any potential targets that may emerge (Coyle, 2000).

In certain cases, horizontal mergers can increase market power of the acquiring entity/merged entity, which may reduce competition. In such cases, the merger may be opposed on the grounds of its anti-competitive effects (Gaughan, 2002).

Vertical merger

Vertical mergers, or vertical integration, is the combination of a company's business with the business of a supplier or customer (Coyle, 2000). Vertical integration is characterized by forward and backwards integration along the supply chain (Alam and Khan, 2014). This type of integration seeks to reduce risks associated with supplies. Integration which moves towards the customer base is labelled forward integration and integration which runs towards the supplier base is known as backward integration (Alam and Khan, 2014).

There is a trend in many industries of moving away from vertical integration and focussing efforts on decentralization and sub-contracting (Coyle, 2000). Motivations behind vertical integration include but are not limited to: a need to procure a source of supply for key materials or services, securing a distribution channel or major customer for the firm's products or services, improving profitability by expanding into the high-margin activities of suppliers or customers (Coyle, 2000).

Vertical mergers can give rise to input, customer and/or competitor foreclosure concerns. In such instances, competition / anti-trust regulators may oppose a vertical merger.

Conglomerate merger

Conglomerate mergers, or conglomerate diversification, occur when companies are not competitors and do not have a buyer-seller relationship (Gaughan, 2002), it is the merging or acquisition of unrelated companies that continue operating in unrelated sectors (Alam and Khan, 2014).

Conglomeration is seen by many companies as a valuable approach to spreading business risks across a wide range of areas as successful performers balance poorly performing subsidiaries in the group (Coyle, 2000; Alam and Khan, 2014). There is a limitation as when conglomerates continue to grow and expand, the risks begin to increase rather than decrease (Alam and Khan, 2014).

There is a trend in moving away from this type of merger and to rather focus on product or market specialisation (Coyle, 2000). Conglomerates which are most successful are those which are able to identify targets and acquire them at relatively low price (Coyle, 2000).

3.1.3. The rationale behind an M&A transaction

The M&A process is complicated, and risk-intense thus an important field of research within the M&A landscape is in examining the rationale behind why firms embark on an M&A process (Haleblian *et al.*, 2009). There is always some underlying motive which steer firms towards M&A. These underlying motivations can be characterized by a series of rationales and drivers which drive the entire deal.

Rationales are made up of the higher-level reasoning that characterizes decision conditions under which a decision to acquire or merge could be made (Roberts, Wallace and Moles, 2016). Drivers can be described as mid-level specific (often operational) influences that contribute towards the justification for a merger (Roberts, Wallace and Moles, 2016).

To illustrate this with the use of an example, say that company X would like to acquire company Y. The rationale for doing so could be for strategy implementation. To attain their strategic objectives, it might be crucial for company X to acquire company Y because there is currently over-capacity in the sector which these two companies operate in. In this case, the rationale for the M&A would be strategic with the underlying driver for acquiring company Y being the desire to control capacity within the sector.

Haleblian *et al.* (2009) proposes four broad categories within which a number of rationales lie, namely: (i) value creation; (ii) managerial self-interest; (iii) environmental factors; and (iv) firm characteristics. For completeness, Alam and Khan (2014) also identify five general rationales for M&A deals, namely: (i) strategic; (ii) speculative; (iii) management failure; (iv) political; and (v) business redefining. The five rationales identified by Alam and Khan (2014) can be allocated to one of the four broad categories proposed by Haleblian *et al.* (2009). The four broad categories proposed by Haleblian *et al.* (2009) are discussed below.

Value creation

Four rationales fall within the "value creation" category, specifically: (i) market power; (ii) efficiency; (iii) resource redeployment; and (iv) financial necessity. These rationales are discussed below.

Market Power: This can be seen as an attempt to gain more value from customers on the basis that having fewer firms in an industry increases firm-level power (Haleblian *et al.*, 2009). This motive for M&A transaction has been supported by the analysis of airline mergers in the 1980s which showed that prices on routes serviced by merging firms increased relative to those unaffected by the merger (Kim and Singal, 1993).

Efficiency: M&A transactions with the underlying rationale of increasing efficiency arise due to the need to reduce the cost side of value creation (Haleblian *et al.*, 2009). Based on numerous studies which have been conducted, it appears that this efficiency was a more significant rationale for M&A transactions that occurred prior to the late 1960s (Klein, 2001)

Resource Redeployment: M&A transactions that are horizontal in nature are often seen as a way to facilitate redeployment of assets and competency transfers, with the objective of generating economies of scope (Haleblian *et al.*, 2009).

Financial necessity: A company could misalign its strategy and suddenly find that its losing value because shareholders have lost confidence. In some cases, the only way to address this problem is to merge with a more successful company or to acquire smaller more successful companies (Haleblian *et al.*, 2009).

Managerial self-interest

Much of the research assumes that M&A transactions are carried out to maximise shareholder value; however, a number of studies consider that M&A transactions can often destroy shareholder value as the motivation behind the M&A transaction is for managers to maximise their own self-interest and not necessarily deliver greater returns for shareholders (Haleblian *et al.*, 2009). Three rationales fall within the "managerial self-interest" category, specifically: (i) compensation; (ii) managerial hubris; and (iii) management failure. These rationales are discussed below.

Compensation: Many researchers have shown the relationship between higher-ranking compensation and ownership and M&A behaviour. Agrawal & Walkling (1994) presented findings that industries with higher CEO compensation generally exhibit larger M&A activity Evidence suggests that managers desiring increased compensation often pursue M&A transactions (Haleblian *et al.*, 2009).

Managerial hubris: Another factor that can lead to an increase in M&A behaviour is that of managerial confidence and ego gratification. Managerial hubris, which is exaggerated self-confidence, tends to overestimate their ability to generate returns resulting in their willingness to overpay for a target. This leads to firms undertaking value-destroying deals (Haleblian *et al.*, 2009).

Management failure: This is where a M&A may be forced due to the "failure" or "under performance" of management. Strategies implemented by management or adverse market conditions can lead to management embarking on an M&A process. This is often done as a first step to correcting management failure rather than considering other options for business recue (Alam and Khan, 2014).

Environmental factors

Three rationales fall within the "environmental factors" category, specifically: (i) environmental uncertainty and regulation; (ii) network ties; and (iii) political. These rationales are discussed below.

Environmental uncertainty and regulation: Environmental uncertainty influences whether firms choose to acquire or opt for other cooperative means (Haleblian *et al.*, 2009).

Network ties: Network ties can be an important driver of acquisition behaviour. It was found that managers copied the M&A activities of firms they were tied to through interlocking directorships (Haleblian *et al.*, 2009).

Political: The impact of political influences is becoming increasingly significant with regards to M&As. M&As occurring under this rationale often take place on a governmental level (Alam and Khan, 2014).

Firm characteristics

Five rationales fall within the "firm characteristics" category, specifically: (i) acquisition experience; (ii) firm strategy and position; (iii) strategic; (iv) speculative; and (v) business redefining. These rationales are discussed below.

Acquisition experience: Recent experience in M&A activity has been shown to be positively impact M&A activity, especially when there is a history of strong M&A performance (Haleblian, Kim and Rajgopalan, 2006).

Firm strategy and position: In terms of international strategy, evidence shows that firms following a global strategy have larger proportions of joint-ventures than multi-domestics. On the other hand, firms following a multi-domestic strategy have higher proportions of acquisitions (Harzing, 2002).

Strategic: This is where a M&A transaction is undertaken to achieve a set of strategic objectives. M&A transactions are in general not central to achieving strategic objectives because usually there are other alternatives available (Alam and Khan, 2014).

Speculative: This is when the acquirer takes the acquired organisation as a commodity. An acquirer will only go through with an acquisition if there is a significant potential that it could stand to benefit. A significant risk is that the acquirer can do anything with the other organisation once it is acquired, such as splitting it up or selling it in parts. This rationale is vulnerable to changes occurring in the environment (Alam and Khan, 2014).

Business redefining: Redefining a business is often possible through M&A activity. This is an appropriate strategic rationale when an organisation's mission and vision grow. An organisation may not immediately be able to achieve this enhanced vision and mission, therefore they seek to acquire an organisation which will help redefine its business to achieve this vision and mission (Alam and Khan, 2014).

In addition to the rationales for embarking on M&A deals, there are also motive theories for why organisations pursue M&A deals. These motive theories are elaborated upon in the next section.

3.1.3.1. M&A motive theories

Trautwein (1990), identifies seven different theories for merger motives. He acknowledges that merger motives have generated fewer theoretical efforts than merger consequences. The theories identified and classified by Trautwein (1990) are elaborated upon below.

Efficiency theory

In this theory, mergers are seen to being planned and executed to achieve synergies. There are three types of synergies, specifically: (i) financial synergies, which result in the lower cost of capital; (ii) operational synergies, which arise through combining operations; and (iii) managerial synergies, which provide a target with managerial expertise and support. These synergies are discussed in further detail below.

1. Financial synergies result in lower cost of capitals. There are three ways to achieve this, specifically: reducing the systemic risk of a company's investment portfolio by investing in unrelated businesses, increasing the companies size thereby giving it access to cheaper capital and lastly, establishing an internal capital market which may operate on better information therefore allocating capital more efficiently.
2. Operational synergies, which can arise from combining operations of, until now, separate units or knowledge transfers. These operational synergies may reduce the cost of the involved business units or may allow the company to offer distinctive products or services. The possible advantages must be weighed against the cost of combining or transferring assets.
3. Managerial synergies can be achieved when the acquirer's managers possess greater planning and monitoring abilities that benefit the target's performance.

Trautwein (1990) acknowledges that this theory record is unfavourable as while it is consistent with stock market quotations, it is not consistent with a company's actual performance.

Monopoly theory

This theory considers mergers to be planned and executed in order to establish or achieve an increase in market power. This theory extends to both horizontal mergers and conglomerate acquisitions. Conglomerate acquisitions may allow a firm to embark on the following activities:

1. The firm can cross-subsidize products, for instance, products from the position in one market are used to sustain a fight for market share in another market.
2. The firm can aim to limit competition in more than one market. Possible ways in which firms can achieve this include; tacit collusion with competitors in more than one market, joint dealing, and the combining of business functions.

3. The firm can aim to deter possible entrants from its markets. A way in which this can be achieved is concentric acquisition by a market leader. Concentric acquisition involves firms which serve the same customers in a particular industry however they do not offer the same products or services. The product or service offering may be complements of each other but they are not technically the same product.

Monopoly theory has been proven to be weak, delivering mixed results on the companies' performance.

Valuation theory

This theory considers mergers to be planned and executed by managers who have better information about a targets value than the stock market (Trautwein, 1990). The managers of an acquirer could have exclusive information regarding possible advantages of a merger with a specific target, or they could have identified an undervalued company that may be waiting to be sold in pieces (Trautwein, 1990).

Empire-building theory

This theory considers mergers to be planned and executed by managers who aim to maximise their own utility rather than shareholder value (Trautwein, 1990).

Process theory

This theory describes strategic decisions as outcomes of processes governed by the influences below, rather than by rational choices (Trautwein, 1990).

1. Almost all work on decision processes argue that individuals hold restricted information processing capabilities. Thus, the search for information and alternatives may be reduced, evaluations incomplete and cognitive simplifications used (Trautwein, 1990).
2. The array of participants in a firm and their restricted rationality prevent comprehensive rational solutions to problems. Old solutions are used on new problems and new solutions are only pursued if the old ones fail. Over time, the firm learns by developing a set of routines for different problems. The firm is adaptively rationale (Trautwein, 1990).
3. Strategic decisions are interpreted as the product of political games that are played out between an organisation's subunits and outsiders. Tactical considerations and mutual adjustments dictate the decision process (Trautwein, 1990).

Raider theory

Raider theory describes the phenomenon whereby an individual causes wealth transfers from the stockholders of the companies which he or she bids for to force existing stockholders to exit. These wealth transfers include greenmail (the practice of buying enough shares in a company to threaten a takeover, forcing the owners to buy them back at a higher price to retain control) or excessive compensation after a successful takeover (Trautwein, 1990).

Disturbance theory

Disturbance theory suggests that merger waves are caused by economic disturbances (Gort, 1969). They instigate changes in individual expectations and increase the overall level of uncertainty thus changing the ordering of individual expectations. Prior non-owners of assets now place a higher value on these assets than their owners and vice-versa resulting in a merger wave (Trautwein, 1990)

3.2. The M&A process

The complete M&A process is often overlooked within the deal making process, however it can make or break a deal. Poor planning often results in a failed transaction therefore it is of paramount importance to study the process of an M&A transaction and to plan each stage effectively to maximise the potential of a successful deal.

As noted above, there are common elements that make up every deal which include strategy development, systematic selection and screening of possible targets, due diligence, negotiations and integration. Many of the models which describe the M&A process focus on many of the steps around these core activities.

Previous research in this area suggest that the M&A process can be broken up from two to seven phases. For instance, Boland (1970) suggested that the M&A process could be split up into two phases, namely; (i) the pre-merger phase, and (ii) the post-merger phase. On the other hand, Salus (1989) identified three phases, namely; (i) the pre-merger phase, (ii) the merger phase, and (ii) the post-merger phase. There have been numerous other models on which various phases have been proposed but almost all cover the basic elements which were mentioned previously. Calipha, Tarba and Brock (2010) have summarised the various models of the different phases of a M&A process. Table 3.1 provides a summary of these models, along with the different phases for each model.

Table 3.1 - Phases of the M&A process identified from literature (Calipha, Tarba and Brock, 2010)

Year	Phases of the M&A Process Identified	Reference
1969	The courtship phase; The marriage ceremony; The honeymoon; After the honeymoon	(Vance *et al.*, 1969)
1970	Premerger; Post-merger	(Boland, 1970)
1982	Integration with strategic plan; Intelligent screening; Evaluation of targets through creativity and analysis; Understanding value and price; Anticipating the post-acquisition phase; Efficient implementation	(Farley and Schwallie, 1982)
1989	Premerger; Implementation	(Shweiger, Weber and Power, 1989)
1989	Assessment; Joint planning; Issue analysis; Structure selection; Securing approvals; Final planning; Final implementation	(Kazemek and Grauman, 1989)
1989	Premerger; Merger; Post-merger	(Salus, 1989)
2000	Premerger; During; Post-merger	(S. . Appelbaum *et al.*, 2000a; S. H. Appelbaum *et al.*, 2000b)
2003	Strategy planning; Candidate screening; Due diligence and deal execution; The ultimate integration phase	(Parenteau and Weston, 2003)
2007	Idea; Justification (including due diligence and negotiation); Acquisition integration; Results	(Carpenter and Sanders, 2007)

As can be seen from Table 3.1, the concept of the pre-deal, deal and post-deal phases are quite prominent. Subsequent research has expanded on the concept of pre-deal, deal and post-deal phases as is the case with the Three Phases model by Marks & Mirvis (Marks and Mirvis, 2015). This model builds on the models identified in Table 3.1. This model identifies three core stages in the M&A deal process. The three phases are a pre-combination phase, combination phase and post-combination phase. These phases are discussed below.

Pre-combination: In this phase, the deal is conceived and negotiated by executives. A thorough due diligence is executed. Legal approval must be obtained during this phase from shareholders and regulators (Marks and Mirvis, 2015).

Combination: In this phase, planning for the combining of the two companies proceed. Integration decisions are made during this phase (Marks and Mirvis, 2015).

Post-combination: During this phase, implementation takes place. The two companies are combined, and people settle into their new roles. Close attention is payed to the functioning of the company and its business processes (Marks and Mirvis, 2015).

3.2.1. The Deal Flow Model

The model which is commonly used in deals today derives many of its phases from the models mentioned in the previous section. The Deal Flow Model, formulated by Galpin & Herndon (2007) is a framework for conceptualizing the fundamental stages of the M&A deal process. Figure 3.2 shows the various stages which make up the model, as well as where each phase fits into the deal-making process. The remainder of this section examines each stage of The Deal Flow Model in more depth.

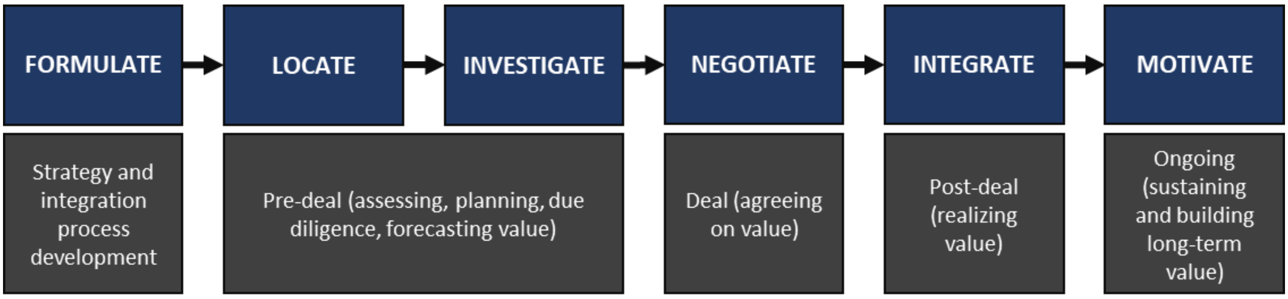


Figure 3.2 - The Deal Flow Model (Galpin and Herndon, 2007)

Stage 1: Formulate

The first stage sets the tone for the rest of the deal, it is therefore important to start off on the correct path. The firm should set out its business objectives and growth strategy in a well-defined, rational and data-oriented way. The executives should explain what a feasible target would encompass in terms of meeting specific criteria which is grounded in the objectives set out. Criteria can include the likes of market share, geographical access, new products or technologies, and synergies. In essence, the executives should decide on the rationale behind the M&A transaction (Galpin and Herndon, 2007).

To ensure that the deal gets off to a successful start, it is imperative for the M&A team to work closely with the executives, people in organisation development, HR, and other business units to map the whole M&A process. Specific roles and relationships should be pre-defined during this mapping process as well as management of the knowledge-capturing process. It becomes increasingly difficult to manage these responsibilities once a deal gets off the ground therefore making it essential to do this as early in the process as possible (Galpin and Herndon, 2007).

Stage 2: Locate

During this stage, the firm searches for desirable target companies. Financial and operational analysis initiate conversations between the executive staff. These conversations lead to high-level identification of potential synergies by the M&A deal team. The result of this exercise is the letter of intent which contains the initial deal parameters, terms and conditions (Galpin and Herndon, 2007).

The letter of intent is often a non-binding agreement between parties. It includes specific details on items, such as, the assets and business units involved, the equity positions of the acquirer, the assumption-of-debt requirements, intercompany supply agreements, employee liabilities, taxes, technology transfer, indemnifications, public announcements, and the consideration payable (Galpin and Herndon, 2007).

Gathering information about possible targets is an important step in this phase. In order to build up a profile of each potential target, several sources of information should be used. To identify firms in the target industry or geographical market, publicly available information can be used. Directories published by organisations such as trade associations and information professionals can provide information about companies operating in specific industries. Other information sources which could be used to obtain further information include stock market analyst reports for listed companies, trade journals and publications, trade associations, business literature and online search facilities, stockholder lists, research studies, contacts in business or contacts with knowledge of the potential target, published financial accounts, the potential target's own product literature or website (Coyle, 2000).

Stage 3: Investigate

The third stage of the model consists of a thorough due diligence to explore all aspects of the target company. The due diligence that is conducted should uncover as much detail as possible about the target before finalising a definitive agreement. Due diligence should be conducted over several areas, including, among others, finance, operations, legal and environmental issues. The due diligence team summarises their key findings from the process and identifies potential deal killers or synergies. The acquirer uses findings from the due diligence process to set negotiating parameters, determine bid prices and provide the foundation for initial integration recommendations (Galpin and Herndon, 2007). Due diligence will be examined in more depth in the Section 3.3.

Stage 4: Negotiate

This stage is made up of process steps and requirements to reach a conclusive deal successfully. The deal team drive this stage of the transaction. After being briefed by the due diligence team, the deal team along with senior executives devise the final negotiating strategy for all terms and conditions of the deal. Considerations for the final negotiating strategy include factors such as price, performance, people, legal protection and governance (Galpin and Herndon, 2007).

Stage 5: Integrate

This stage of the deal should be customized for each company and modified to each specific deal. This stage involves the process of planning and implementing the newly merged organisation's processes, people, technology and systems. Questions which should be considered during this stage to help resolve the host of issues encountered during this stage include: how fast to integrate; how much disruption will be created, how can disruption be minimised; how people can be assisted to continue focussing on customers, safety, daily operations; and how to best communicate with all stakeholders (Galpin and Herndon, 2007).

Stage 6: Motivate

The final stage of this model is focussed on maximising the long-term value of the merged entity. When major integration activities have been completed and most, if not all, projected synergies have been realised, management's responsibility moves towards the demands of driving the organisation forwards in order to achieve continuous performance improvements.

3.2.2. Due diligence in the M&A process

Regardless of the model used to depict the M&A process, due diligence is always carried out for every deal. According to Howard (1996), due diligence assists in answering three important questions for the deal; whether to buy at all, how much to pay and how to structure the acquisition. It is clear that due diligence plays a significant decision-making role in the M&A process.

There are many definitions of due diligence, for the purposes of this thesis, the definition of due diligence has been derived from several sources to provide a comprehensive definition. In this regard, "due diligence" can be defined as:

> The comprehensive and systematic examination of a potential target for a merger, acquisition, privatisation, or similar corporate finance transaction (Angwin, 2001; Gillman, 2010), which includes an analysis of 'hard' and 'soft' data on the target to assist in answering key questions, including, "Do we buy?", "How do we structure the acquisition?" and "How much do we pay?" (Stachiwicz-stanusch, 2009; Gillman, 2010). The examination typically occurs before major decisions are made, or immediately after a deal is announced; and is intended to uncover prominent issues which may impede negotiations or integration (Angwin, 2001; Denison and Ko, 2016).

A brief introduction to due diligence has been provided in this section. Section 3.3 provides a deeper analysis of due diligence.

3.3. Due diligence

This section aims to provide further detail on M&A due diligence. The purpose of due diligence is to provide a fundamental understanding of why an M&A deal is carried out and what the implications are on the deal. Following on from this, the due diligence process from the buyer's perspective is examined. Due diligence from the target's perspective is also briefly addressed. The areas of due diligence are identified and introduced. These areas are expanded upon in Chapter 4 (see Section 4.4). Lastly, the integrated due diligence approach model proposed by Gillman (2010) is presented and discussed.

3.3.1. The purpose of due diligence

Due diligence assumes a critical role in the M&A process. The purpose of due diligence is to; (1) fulfil certain legal requirements, (2) support the valuation process, (3) act as a mechanism to reduce risk, (4) arm negotiators, and (5) assist in post-merger integration (Winternitz, 1996; Silver, 1997; Bruner, 2004; Galpin and Herndon, 2007). Each of these purposes are unpacked in detail through the remainder of this section.

3.3.1.1. Fulfilling legal requirements

As required by law (Winternitz, 1996), due diligence demonstrates that due care has been taken by anyone embarking on a transaction. The responsibilities of exercising reasonable care is usually on the directors of the acquirer, however this is limited to nature of the business and the responsibilities assumed by the directors (Beuthin, 1984). If a director has acted in a manner which is consistent with the manner in which a reasonable person in possession of the same knowledge and experience as the director concerned would have acted, then the director should not be held liable for negligence. The director may delegate some of their responsibility to the auditor in a bid to limit his/her exposure (Cilliers and Benade, 1985; Gillman, 2010).

In the South African context, the South African Local Government: Municipal Finance Management Act (*Local Government: Municipal Finance Management Act 56*, 2003) states that the organ of state to which a capital asset is to be transferred must undertake and document a due diligence review on the asset and any liabilities transferred to it before entering into a transfer agreement. The Act also adds that the results of the due diligence must be taken into account for any decision to transfer a capital asset and that the asset to be transferred should be formally valued (*Local Government: Municipal Finance Management Act 56*, 2003; Gillman, 2010).

The Sarbanes-Oxley Act of 2002 in the USA requires that public company acquirers conduct a review of the internal controls and financial reporting procedures for themselves as well as the target (Galpin and Herndon, 2007). The Act requires that all material weaknesses be disclosed and that representations be made by management of the acquirer as well as the external auditors regarding the adequacy and effective operations of those controls and procedures. The Act sets out aggressive statutory reporting periods in which any deficiencies found must be remedied (Galpin and Herndon, 2007).

By conducting a due diligence investigation, an important factor for the deal is addressed by ensuring that the deal fulfils all legal requirements. Legal requirements will vary from country to country and depending on the geographic location where the deal is taking place. The laws of that country must be considered when conducting a due diligence review.

3.3.1.2. Supporting the valuation process

Due diligence plays a key role in supporting the valuation process of the target (Bruner, 2004). As discussed, there are three major questions that drive the due diligence process, specifically, (i) whether to buy at all, (ii) how much to pay, and (iii) how to structure the acquisition (Howard, 1996). To answer the second question, how much to pay, a valuation of the target is required.

Valuation of the target typically occurs when the letter of intent is signed (Lovallo *et al.*, 2008), thus making it difficult to incorporate the findings from due diligence into the valuation. However, often valuations can and should be adjusted as the due diligence process proceeds. Due diligence helps to uncover information that needs to be fed into the valuation before negotiations can take place (Beech and Thayser, 2015). For example, the analysis of historical trends may lead to the realisation that the margins used in the forecasts are not achievable, therefore necessitating that the valuation be reworked to include a better estimate of the margins (Beech and Thayser, 2015).

Bruner (2009) speaks to the need to add value, in the form of definite synergies, to increase the likelihood of success for the deal which assists in confirming the link between due diligence and valuation. The due diligence process helps to identify and quantify potential synergies regarding the deal. These quantified synergies, when fed into the valuation, can have a significant impact on the valuation of the target business (Garzella and Fiorentino, 2013; Beech and Thayser, 2015)

3.3.1.3. Mechanism to reduce risk

Silver (1997) describes due diligence as a form of risk management. This is one of the most important factors of the due diligence process; uncovering and reducing risks associated with the transaction. Gillman (2010) identifies three important tools to reduce risk, namely, warranties and representations, insurance and the role of professional advisors in the risk evaluation model.

Begg (1991) defines a representation or warranty as a “contractual representation by the vendor which if it is untrue entitles the purchaser to claim for damages”. Warranties and representations thus play a significant role in risk reduction for M&A transactions. The strategy of the acquirer plays key role in determining the type of warranties which are required (Lowy, 1992; Harvey and Lusch, 1998). For example, if the reason for pursuing an acquisition was to benefit from a future stream of profits, profit warranties would be vital for the transaction (Lowy, 1992).

Warranties and representations have the ability to affect the risk structure of the deal negatively and positively (Murphy, 1998). Positive representations are those made in favour of the acquirer where representations or warranties are made to mitigate or nullify specific risks relating to the transaction (Murphy, 1998). Negative representations are those made in favour of the seller and make known the existence of all risks and liabilities which will have to be assumed by the buyer (Murphy, 1998; Gillman, 2010). For a negative representation, the seller refers to issues which may have negative implications for the target to ensure that the seller is protected from litigation which could arise should they have not made such representations (Murphy, 1998).

The role of professional advisors is another mechanism to reduce risk. Auditors issue an audit report which can be seen as a guarantee issued by the auditor (Gillman, 2010). It should be established whether the auditor is liable should the financial statement be misstated, and this can differ between jurisdictions. In South Africa and the USA, an auditor is liable only if specific criteria are met (Bing, 1996; *Auditing Profession Act 26*, 2005). Responsibility is also shifted on to professionals to reduce the risk exposure of the organisation (Murphy, 1998).

Insurance is another tool at the disposal of due diligence teams to reduce risk (Gillman, 2010). Insurance companies in the USA will usually insure against contingencies which do not directly relate to the core business of the target (Fink, 1997). Often a deal team will overlook insurance as a tool to reduce risk as there is a perception that premiums will be too expensive however insurance can almost always be obtained at a reasonable rate (Fink, 1997; Adolph, Gillies and Krings, 2006). Gillman (2010) suggests that a risk manager and insurance broker play a key role in the due diligence process to minimise risk.

3.3.1.4. Arm negotiators

A key purpose of due diligence is to provide crucial data-based information to the negotiating team leading the negotiations for the deal (Angwin, 2001; Galpin and Herndon, 2007). There are three outcomes of due diligence which inform the negotiations and these include: (1) a list of significant risks, (2) valuation information on the target, and (3) assurance that the target is compliant with all legislation and regulation (Beech and Thayser, 2015; Denison and Ko, 2016).

The risks identified during due diligence must be brought to the attention of the negotiators as these risks must be accounted for in the sale and purchase agreement (Beech and Thayser, 2015). As discussed in the previous section, risks can be covered by introducing warranties and representations into the agreements as well as obtaining insurance and indemnities against these risks (Bruner, 2004).

Due diligence plays a role in supporting the valuation process (see Section 3.3.1.1). The results of the valuation have a direct impact on the negotiations as it helps to establish a purchase price (Beech and Thayser, 2015). Further, during due diligence several aspects of the target will be quantified in terms of their value (Galpin and Herndon, 2007). These aspects, include, intangible aspects of the target, such as, intellectual property (IP), and hard aspects of the target, such as, physical assets. Due diligence consequently plays a significant role in establishing the purchase price since valuations are often conducted during due diligence.

Legal due diligence ensures that a target is compliant with all legislation and regulation (Bruner, 2004). Significant issues with non-compliance must be brought to the attention of the negotiators so that these issues can be addressed directly in the sale and purchase agreement (Beech and Thayser, 2015).

3.3.1.5. Assist in post-merger integration

Galpin and Herndon (2007) state that due diligence should 'facilitate a streamlined and effective launch of the integration-planning process'. This is the final major purpose of due diligence. A due diligence team has the most in-depth knowledge on the target and are therefore in the prime position to assist in planning the integration of the two companies.

During the due diligence process, part of the due diligence team's investigations include determining whether there are potential integration issues (Beech and Thayser, 2015). These issues can range from substantial issues, such as, non-aligned IT systems and relatively minor issues, such as, the target allowing senior management to fly business class compared with the acquirer who only flies their senior management in economy.

Galpin and Herndon (2007) suggest that integration issues must be considered while conducting due diligence. The due diligence team should pose questions, such as, "What are we buying and why?", "What type of integration strategy is needed to get to essential value drivers?" and "What is the level of integration required to achieve synergies?" etc. Furthermore, the due diligence team should consider common integration "deal-killers" whilst conducting their investigations (Endert and Mammen, 2015).

3.3.2. The due diligence process

There are several factors which must be understood when considering the due diligence process. The first is timing of the due diligence investigation followed by the establishment of the due diligence team (Bruner, 2004). The level and scope of due diligence must then be considered (Beech and Thayser, 2015).

3.3.2.1. Timing

There are different ways of approaching the timing of due diligence. Bruner (2004) suggests breaking up the due diligence process into phases which are marked by certain events which occur in almost every deal. Bruner (2004) states that the due diligence process should begin before the acquirer approaches the target by using information which is publicly available. This is backed up by Harvey and Lusch (1998) who propose uncovering and analysing information before the identification of a target.

Once a target has been chosen and contact has been established, the acquirer is able to directly access information relating to the target. The first proposal is the event at which an acquirer makes the first proposal to acquire the target (Bruner, 2004). At this stage, the acquirer usually offers a price along with certain terms; however, this is still the early stage of the deal and the target will agree to provide a certain amount of information to assist in drafting a letter of intent (LOI) (Bruner, 2004; Lovallo *et al.*, 2008).

The LOI is a public statement which commits both parties to negotiate the terms of the merger or acquisition in good faith (Bruner, 2004; Beech and Thayser, 2015). The LOI covers areas such as specifying a deadline for reaching an agreement, the responsibility of expenses relating to due diligence and drafting agreements as well as any breakup fee (penalty to be paid if the target backs out of a deal) or topping fee (penalty paid by the acquirer to the target when they accept a higher bid from a competing acquirer) (Bruner, 2004; Beech and Thayser, 2015). A separate letter of confidentiality is usually signed by the acquirer to gain access to private information on the target (Bruner, 2004). Once a LOI has been signed, the main due diligence investigations can commence with the acquirer requesting a list of information which they require (Harvey and Lusch, 1998; Bruner, 2004).

The next step in the process is the signing of the merger or acquisition agreement whereby the due diligence investigations focus on testing the warranties and representations in the agreement (Bruner, 2004; Gillman, 2010).

The final stage, closing the deal, confirms the conditions set out in the contract (Bruner, 2004). This is where post-merger integration commences. At this stage, Harvey and Lusch (1998) stress that the due diligence process should be continued since the due diligence team has the most information available on the target and can assist in integration planning and execution.

Timing of the due diligence process can vary between different deals. An ideal scenario for a seller would involve due diligence being carried out once a binding sale and purchase agreement has been finalised with the acquirer (Hausman and Belsher, 1992). On the other hand, an acquirer would find it more advantageous to conduct due diligence as early as possible as doing so will allow them more time for including various terms in the sale and purchase agreement as well as determining a more accurate calculation for the consideration payable for the target (Hausman and Belsher, 1992; Gillman, 2010).

In certain cases, due diligence is only completed after the deal has been concluded (Gillman, 2010). In these cases, due diligence is generally carried out as a mere formality to prove to shareholders that a due diligence process was carried out in the event that a deal fails (Gillman, 2010).

3.3.2.2. Due diligence team

An important consideration within the due diligence process is the question of “Who is responsible for due diligence?” (Beech and Thayser, 2015). A due diligence team is appointed by the deal team leading the deal or by senior management within the acquiring organisation (Harvey and Lusch, 1995). The due diligence team is responsible for carrying out and managing the entire due diligence process.

A common scenario for many deals involves the outsourcing of certain due diligence tasks and investigations (Beech and Thayser, 2015). A common example of this is where financial due diligence is outsourced to an accounting firm and legal due diligence is outsourced to a law firm. Beech and Thayser (2015) warn against outsourcing the management and responsibility of the due diligence process as this generally produces meagre results and the cost to the organisation is likely to be substantial both in terms of the fees paid as well as the conclusion of the deal itself.

The size of the due diligence team varies throughout the due diligence process; however, the team usually reaches a maximum size between the LOI and the signing of the sale and purchase agreement (Bruner, 2004). A due diligence team requires strict management and leadership as the team must have an understanding about deadlines, the assignments of responsibility, as well as the objectives of specific tasks (Bruner, 2004).

3.3.2.3. Level and scope

Each due diligence process carried out for an M&A deal is unique to that deal. Therefore, the level and scope of the due diligence process will also differ between deals. There are different approaches specified in literature surrounding how to determine the level and scope of due diligence.

Bruner (2004) suggests two strategies for determining the level and scope of a due diligence process, namely: (1) a broad review and (2) a narrow review. A broad review considers all the information available and is not constrained by time. Typically, the acquirer will demand a lot from the target to ensure a comprehensive investigation of the target. A narrow review is brief, constrained and focussed. This strategy is often employed in situations where time is limited and there is competition for the target. The issue with this strategy is that important information can often be overlooked and can result in a high-risk deal. Therefore, whenever possible, it is preferable to pursue the broad review strategy (Bruner, 2004).

Figure 3.3 - The level of detail required in a due diligence (Beech and Thayser, 2015)

Beech and Thayser (2015) suggest determining the level of scope based on a number of different factors. The approach is illustrated in Figure 3.3. If the target operates in a similar industry, then less detail would be required compared to the case where a target operates in an unfamiliar industry. Likewise, more detail is may be required in an international investment in comparison to a local investment, or where the size of a target is large in comparison to the size of the acquirer. Finally, a high-profile deal, which has the potential to impact the acquirer's share price, necessitates a more detailed due diligence (Beech and Thayser, 2015).

Apart from the approaches mentioned, there are several factors which should be considered when determining the level and scope of due diligence. These factors are elaborated upon in Table 3.2.

Table 3.2 - Factors affecting the level and scope of due diligence

Factor	Description	References
Confidentiality	This places a limitation on the due diligence process. Confidentiality is usually a factor in hostile take-over situations or in scenarios where the transaction is taking place without the co-operation of the target. In these circumstances, publicly available information on the target is relied upon.	(Gillman, 2010) (Adolph, Gillies and Krings, 2006)
Time restrictions	Time restrictions can limit the due diligence process which can result in an incomplete due diligence. A strict plan is required in these circumstances to ensure that the level of due diligence is enough to proceed with a deal.	(Harvey and Lusch, 1995) (Gillman, 2010)
Risk factors	An inverse relationship exists between the amount of due diligence and the risk tolerance of the acquirer. This means that an acquirer will have a greater tolerance to risk factors when the level and scope of due diligence is much higher.	(Hausman and Belsher, 1992)

Cost constraints	Cost constraints can limit the level and scope of due diligence as there may simply not be enough in the budget to allow for a very detailed due diligence. In these scenarios, the role of representations and warranties in the transaction agreement documents are crucial. The main issue with cost constraints is that there may not be enough information to perform a proper evaluation of the target.	(Gillman, 2010) (Harvey and Lusch, 1995)
Competition	There may be intense competition for a single target which can reduce the depth of a due diligence process. In this scenario, a target holds most of the bargaining power and may not allow for a thorough due diligence process.	(Harvey and Lusch, 1995) (Gillman, 2010)
Opinions of independent experts	The use of external experts to conduct their own investigations and provide an opinion reduces the scope of the due diligence process. This is because the work is completed externally therefore the acquirer would not have to assign an internal person to complete this work.	(Hausman and Belsher, 1992)
Confidence	If there is a high level of trust between the target and acquirer, the level of due diligence is reduced. Although it is still prudent to conduct a thorough due diligence, the information gathered on the target can be trusted therefore reducing the need for double-checking and deep diving investigations.	(Gillman, 2010)

3.3.3. Areas of due diligence

Within due diligence, there are various functional subsections which can be identified (Endert and Mammen, 2015). These functional subsections are commonly referred to as “areas of due diligence” (Bruner, 2004). The purpose of these areas is to provide focus on the different functional areas of an organisation to comprehensively examine the state of affairs and discover any issues or risks (Marks and Mirvis, 2001). It should be noted that there are numerous areas of due diligence, thus each area may not be applicable to every transaction. Consequently, the areas of due diligence covered should be tailored for each individual transaction in consultation with due diligence experts (Bruner, 2004).

Howson (2003) identifies three main areas of due diligence, as well as some of the other common areas of due diligence. These areas are summarised in Table 3.3. Depending on the nature of the deal, some of these areas will be carried out as stand-alone enquiries whilst others may be combined to work according to constraints such as budget and time (Howson, 2003).

Table 3.3 - The areas of due diligence according to Howson (2003)

Area	Due Diligence Area	Focus Of Enquiries	Results Sought
Main Areas	Financial	Validation of historical information, review of management and systems	Confirm underlying profit, provide a basis for valuation
	Legal	Contractual agreements, problem spotting	Warranties and indemnities, validation of all existing contracts, sales and purchase agreement
	Commercial	Market dynamics, target's competitive position, target's commercial prospects	Sustainability of future profits, formulation of strategy for the combined business, input to valuation

Other Areas	Human resources	Contents of the workforce, terms and conditions of employment, level of commitment and motivation, organizational culture	Uncovering employment liabilities, assessing the potential HR costs and risks, prioritizing the HR issues which must be dealt with first during integration, costing and planning the post-deal HR changes
	Management	Management quality, organisational structure	Identification of key integration issues, outline of new structure for the combined business
	Pension	Various pension plans, pension plan valuations	Minimise the risks of underfunding
	Tax	Existing tax levels, liabilities and arrangements	Avoid any unforeseen tax liabilities, opportunities to optimise position of combined business
	Environmental	Liabilities arising from sites and processes, compliance with regulations	Potential liabilities, nature and cost of actions to limit them
	IT	Performance, ownership and adequacy of current systems	Feasibility of integrating systems, associated costs, IT plans for operational efficiency and competitive advantage
	Technical	Performance, ownership and adequacy of technology	Value and sustainability of product technology
	Operational	Production techniques, validity of current technology	Technical threats, sustainability of current methods, opportunities for improvement, investment requirements
	IP rights	Validity, duration and protection of patents and other IP rights	Expiration, impact and cost
	Property	Deeds, land registry records and lease agreements	Confirmation of title, valuation and costs/potential of property assets
	Antitrust / Competition	National filing requirements with antitrust/competition body, degree of market/information sharing with competitors	Merger control filings and clearance, assessment of any antitrust/competition risks posed by the target's activities, an assessment of the enforceability of the target's contracts
	Insurance / Risk	Present, future ad past exposures of the business, structure and cost of the existing programme	The costs and benefits of retaining risk versus transferring it

Apart from the areas of due diligence mention by Howson (2003), there are a few other areas which are common in due diligence processes. These include cultural due diligence (Bruner, 2004), strategic due diligence (Adolph, Gillies and Krings, 2006), marketing or sales due diligence (Gould, 1981) and research and design (R&D) due diligence (Patrick Lemieux and Banks, 2007). These areas are described in Table 3.4.

Table 3.4 - Other areas of due diligence not discussed by Howson

Area Of Due Diligence	Description
Cultural	Cultural differences between the target and the buyer are believed to contribute to the high failure rate of M&A transactions (Lovallo *et al.*, 2008). Due diligence investigations of the target's culture should aim to assess resemblance on three levels: (1) between actions and aspirations, (2) between the cultures of buyer and target, and (3) between the target's culture and its strategic threats and opportunities (Bruner, 2004).
Strategic	Strategic due diligence explores whether the potential value and concern about buying the target at the right price is realistic. It tests the strategic rationale behind a proposed transaction with two broad questions: Is the deal commercially attractive? And are we capable of realising the targeted value? (Adolph, Gillies and Krings, 2006)
Marketing	Marketing due diligence assists in the strategic fit between the target and acquirer. It employs an analytical methodology that assesses the target's sales and marketing strengths and weaknesses to ensure that the deal meets the financial, strategic, and operational objectives of the acquirer (Gould, 1981). A key aspect of marketing due diligence is to study the deal through the eyes of the customer; this is critical to market-facing businesses (Kumar and Hansted Blomqvist, 2004).
R&D	R&D due diligence is often specific to certain types of deals. This due diligence would only be carried out on specific targets. The capabilities of the R&D department of the target are analysed in these investigations. Potential synergies should also be identified (Patrick Lemieux and Banks, 2007).

3.3.4. The integrated due diligence approach

There are various methods to conduct a due diligence process. Organisations which regularly embark on M&A deals tend to have their own method or approach for due diligence. These methods are often kept confidential; thus, it is necessary to consult the available literature to identify methods or approaches for conducting due diligence. One such approach is the integrated due diligence approach suggested by Gillman (2010). This approach builds on the work of Harvey and Lusch (1995), Kroener and Kroener (1991) and Naylor (1996).

The integrated due diligence approach consists of nine fields which should be covered in a comprehensive due diligence. These fields are audits that encompass the various areas of due diligence discussed in Section 3.3.3. Seven of these audit areas have been developed by Harvey and Lusch (1995), whilst two have been added by Gillman (2010). The audit areas as well as their sequence have been presented in Figure 3.4. The details of each audit are described in further details in the subsections that follow.

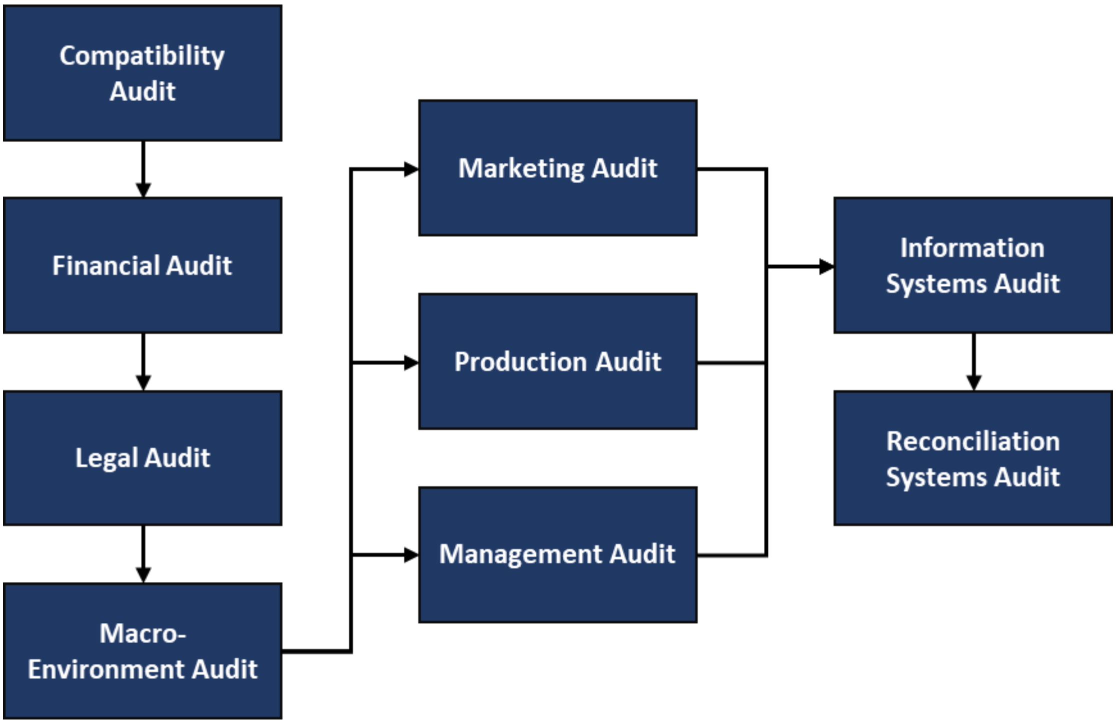


Figure 3.4 - Sequence of audits for the integrated due diligence approach (Gillman, 2010)

3.3.4.1. Compatibility audit

The compatibility audit is the first phase in the integrated due diligence approach. The compatibility audit focusses on three key issues; (1) the acquirer's motives, (2) giving direction to the entire due diligence process and (3) ensuring that the transaction adds shareholder value (Gillman, 2010).

Gillman (2010) suggests that there is a strong correlation between the motive for an M&A transaction and its success or failure. Through understanding the motive for the M&A transaction, the acquirer can determine whether the transaction is a success. As an example, if the motive behind embarking on an M&A transaction is to exploit synergies, and if these synergies are realised, then the transaction may be deemed a success.

The compatibility audit should be viewed as a driver of the due diligence process. This audit helps the due diligence team to concentrate on specific aspects of the due diligence process whilst consistently asking what the motivations behind the transaction are as well as how certain investigations into risk areas have an impact on the acquirer's objectives (Naylor, 1996).

There are a series of questions which must be posed during the compatibility audit. The questions aim to provide clarity surrounding the motivation for the transaction as well as issues regarding the target. The questions are posed below:

- Why embark on the acquisition? (Harvey and Lusch, 1998)
- Is the target's business plan or vision for the next 3-5 years aligned to the acquirer's motives? (Thilmont and Vermeulen, 2003)
- What are the target's strengths? (Thilmont and Vermeulen, 2003)
- Did the transaction arise from a clear strategic process and is this investment better than alternative investments? (Sirower, 2006)
- What is the timing and extent of integration between the acquirer and target? (Gillman, 2010)
- Is the entire target being acquired, or only components thereof? (Gillman, 2010)
- Will the transaction result in the introduction of new products and how do these products complement existing offerings? (Gillman, 2010)
- Which competitors are impacted by the transaction and what is their likely reaction? (Sirower, 2006)
- Does the target have specific strategic partners? (Thilmont and Vermeulen, 2003)

- Does the acquirer intend discontinuing certain of the target's operations or functions after the acquisition? (Gillman, 2010)

There are several types of issues which should be covered in the compatibility audit. Many of these issues are hypothetical and uncertain because they are based on future projections rather than historical results (Gillman, 2010). Further, they demonstrate that this audit should include processes that are capable of testing a theoretical simulation of the future M&A transaction. These issues have been summarised in Table 3.5.

Table 3.5 - Summary of issues to be considered in a compatibility audit

Issue	Description	References
Financing	Figuring out how the transaction is to be financed is a crucial issue because this impacts on shareholder value analysis. Shareholder value analysis has a direct impact on the Weighted Average Cost of Capital (WACC) thereby influencing the valuation of the target.	(Gillman, 2010) (Rappaport, 1986)
Corporate culture	Disparate corporate cultures can often lead to failed transactions. There are two questions that should be answered - (1) Can the two cultures be integrated? (2) At what costs can the cultures be integrated?	(Gillman, 2010) (Harvey and Lusch, 1995) (Harvey and Lusch, 1998)
Synergy	Future synergies must be clearly defined and quantified. There is often a failure to achieve strategic synergies. It is therefore important to determine what the extent of expected performance improvements are and whether these gains correspond with any premiums which are paid.	(Gillman, 2010) (Sirower, 2006)
Information systems	There must be an assessment of the compatibility between the acquirer's and target's information systems. The feasibility of executing a formal plan for the information systems should be analysed.	(Gillman, 2010)
Deal breakers	Potential deal breakers can be revealed by a compatibility audit since they often relate to the motives for the M&A transaction.	(Gillman, 2010)
Taxation	Taxation is an important issue to consider during the compatibility audit as it has a direct impact on the company's WACC. There are taxation benefits that are derived when debt is used in financing transactions. Debt and the possible associated tax benefits reduce the WACC.	(Gillman, 2010)
Anti-competitive legislation	Approval for an M&A transaction must go through a competition or anti-trust commission. The time and costs associated with obtaining approval can be quite high.	(Gillman, 2010)

Gillman (2010) suggests the following approach for conducting a compatibility audit:

- Step 1: Establish the general strategic objectives of the acquirer.
- Step 2: Establish motives for the transaction, bearing in mind the strategic objectives.
- Step 3: Determine the key success factors required to satisfy the motives.
- Step 4: Allocate the key success factors to the different audit areas.
- Step 5: Incorporate these key success factors into any due diligence questionnaires.
- Step 6: Continually report on the risk areas and assess how they affect the strategic master plan (which should be contained in the compatibility audit).

3.3.4.2. Financial audit

There are three key components to the financial audit. The first is analysing historic company performance and assessing interim financial results, which includes an examination of the company's structure, assets and liabilities, an estimation of future earnings and cash flows, and determining individual product line profitability. The second key component is an examination of taxation issues. Lastly, examining key existing financial systems and controls (Gillman, 2010)

Sullivan *et al.* (1985) proposes six major steps for conducting a due diligence financial audit:

- Step 1: Developing an understanding and documentation of the target's business and accounting system and determining factors that could adversely affect the audit.
- Step 2: Planning and documenting an effective and efficient audit strategy.
- Step 3: Evaluation of the internal accounting controls on which the auditor has relied.
- Step 4: Performing compliance tests of those controls upon which the audit relied.
- Step 5: Performing substantive audit tests.
- Step 6: Reporting on the financial statements.

3.3.4.3. Legal/Environment audit

The legal audit includes a broad range of areas relating to the legal aspects of the transaction. The overarching aim of the legal audit is to bring attention to any current or future problem areas which exist in the target (Harvey and Lusch, 1995). The areas of investigation generally included in a legal/environmental audit are included in Table 3.6.

Table 3.6 – Legal/Environment audit areas

Area Of Investigation	Description	References
Share ownership and transfer of assets	This investigation ensures that the seller or target has the proper rights to the shares which it is selling.	(Schmitz and Clark, 1996)
Compliance with M&A laws	The legal audit should test whether the transaction complies with the laws and regulations relating to M&A within the country where the transaction is taking place.	(Gillman, 2010)
Litigation	It is important to scrutinize and assess all current and potential legal claims and determine the impacts based on the current legislation. Legal counsel should especially look out for repetitive small claims by different people as this can be an indication of a serious underlying problem.	(Harvey and Lusch, 1995) (Begg, 1991)
Legal compliance	There must be an investigation to determine whether the target has been and is compliant with all laws and regulations as non-compliance can have serious economic implications on the deal.	(Harvey and Lusch, 1995)
Real property	Legal counsel must confirm ownership of all real property belonging to the target and determine if there are any liabilities attached to the property. Further, the legal team must determine if there is any leasehold property and should consider two aspects: (1) Is the target a lessor of land? (2) Is the target a lessee of land?	(Gillman, 2010) (Begg, 1991)
Insurance matters	All essential policies must be examined to assess the adequacy of cover. Further, there should also be an investigation into uninsured risks to establish why these risk areas are not covered.	(Begg, 1991)

IP rights	IP is an important part of an organisation therefore a thorough assessment must be completed to confirm ownership as well as any current or future issues. The investigation should also confirm that the target has legal title to copyrights and trademarks.	(Rechtin, 1992)
Debt and financing	The terms and conditions of all loan agreements and overdraft facilities must be examined. Furthermore, if there is a holding company involved in the transaction, it should be established whether the holding company is a guarantor of certain loans of the target. Lastly, the lender's attitude towards the target should be determined.	(Bing, 1996)
Labour contracts and history	The legal team must investigate the validity of labour contracts in order to determine if there are or were any ongoing or previous disputes. Furthermore, they must determine whether employees of the target are unionised and if not, whether there are any plans for them to become unionised.	(Gillman, 2010) (Bing, 1996)
Environmental issues	This investigation should establish compliance with environmental regulation and whether there are any significant environmental issues which the target is facing. Historical environmental issues should also be investigated as these can have long-lasting impacts on an organisation.	(Gillman, 2010) (Harvey and Lusch, 1995)

3.3.4.4. Macro-environment audit

The macro-environment audit considers wide-ranging issues which the acquirer has little to no control over (Gillman, 2010). The issues include political, social, economic and demographic factors (Kroener and Kroener, 1991). Although these issues are out of the acquirer's control, they have a direct impact on the future success of the company and are crucial in determining whether future marketing and financial forecasts are accurate (Kroener and Kroener, 1991). The audit also considers risk factors which may impact future profitability (Harvey and Lusch, 1995).

Harvey and Lusch (1995) suggest four steps for conducting a macro-environment audit, specifically: (1) determining why the environment is being scanned as well as the scope of the scan; (2) developing scanning procedures to determine which important variables will affect the strategic future of the company; (3) determine the sources of information and data; and (4) establishing who is responsible for collating the data and deciding on how to communicate the results.

According to Harvey and Lusch (1995), the following areas should be analysed during the macro-environment audit:

- Business and industry link with performance, which includes a consideration of the critical factors within an industry that have made a target successful in the specific industry.
- Impact of the macro-environment on the industry, which includes an assessment of the political social and psychological trends that influence behaviour in the target's industry.
- Competitor profiles, which includes identifying competitors and their strategic position within the industry, and considering their relative competitive advantage, their strengths and weaknesses, and their possible future behaviour.
- Environment opportunities and risks, which includes consideration of possible growth opportunities and risks within the macro-environment that may limit the success of the company, including, the role of economic cycles.
- Management philosophy, which includes consideration of the management philosophy of companies within the industry and the impact of the macro-environment on these philosophies (if any). In this regard, various social, environmental and economic issues can affect management philosophies. Regulatory bodies, such as, industry governing / licensing bodies may also change the direction of management philosophy.

3.3.4.5. Marketing audit

The objectives of a marketing audit is to ascertain how marketing functions are being performed, assess the execution of these functions and provide recommendations as to how to improve the marketing effort (Harvey and Lusch, 1995). Further, it is important to determine whether any synergies exist within the marketing effort between the target and the acquirer (Harvey and Lusch, 1995).

Kotler, Gregor and Rodgers (1977) proposed a marketing audit framework which Gillman (Gillman, 2010) has adapted for the integrated due diligence approach. There are three stages in the marketing audit framework, namely; (1) the agreement on objectives, extent and methodology, (2) information and compilation stage, and (3) report presentation and preparation. The framework is further broken down into elements. These elements are discussed in Table 3.7.

Table 3.7 - Elements of the marketing audit framework (Kotler, Gregor and Rodgers, 1977)

Marketing Audit Elements	Description
Marketing environment	• Attain an in-depth understanding of product, price, promotion and marketing mix. • Consider the potential size of the market and industry. • Consider the key marketing agreements in place, including franchise agreements and commission or agency agreements. • Consider the plan for the development of future and actual products.
Marketing strategy audit	This involves an examination of the target's marketing strategies and the impact that the M&A transaction will have on these strategies. Determine the long-term objectives and verify whether the objectives are attainable.
Marketing organisation audit	Investigate the interaction between the marketing function and sales function. Further, assess the integration of the marketing function with the other functional areas in the organisation.
Marketing systems audit	Gather information regarding the effectiveness of information collection for decision-making in the marketing function.
Marketing productivity audit	Determine whether the products produced, or services offered are profitable and whether marketing costs can be reduced.
Marketing function audit	Analyse the individual marketing departments or divisions within the marketing function to determine their effectiveness.

3.3.4.6. Production audit

The production audit is an investigation of the manufacturing processes as well as the production capacity of the target (Gillman, 2010). This audit is carried out for a target with manufacturing capabilities. The different areas that should be covered in a production audit are summarised in Table 3.8.

Table 3.8 - Areas to be covered in a production audit

Areas	Description	References
Physical plant and equipment value and sustainability	Assessing the value of plant and equipment is essential as it supports the valuation process of the target. The future life of the plant and equipment should be ascertained as well as an assessment of capital expenditure budgets. The due diligence team should also investigate whether any property or equipment is leased.	(Bing, 1996) (Gillman, 2010)

Management and staffing	Personnel can provide information on how the plant and equipment has been serviced. The competence of management and the staff should be ascertained to determine if the manufacturing operation is effective.	(Bing, 1996) (Gillman, 2010) (Harvey and Lusch, 1995)
Manufacturing system appraisal	The due diligence team must determine how the product is manufactured. This investigation examines the interaction between materials, manufacturing space, equipment, HR and data. The capacity of the plant and potential to expand operations must be assessed. Lastly, the impact of international competition (including, through existing and potential imports) on the sustainability of the manufacturing processes should be ascertained.	(Harvey and Lusch, 1995) (Gillman, 2010)
Cost centre profitability	Evaluate the individual profitability of each manufacturing division within the target. The due diligence team must also take into consideration the cost of production labour as well as the relationship between fixed and variable costs. Finally, the break-even points for each product should be determined.	(Bing, 1996) (Gillman, 2010)
Quality controls	The quality of products produced must be investigated as this can have a direct impact on accounts receivable. Any risks associated with product quality should be determined (i.e. litigation). The due diligence team can also consult industry quality standards and certifications to ensure that products manufactured by the target are compliant.	(Thilmont and Vermeulen, 2003)
Sub-contracting	Explore any opportunities for sub-contracting which can affect future synergistic benefits and will influence future cash flows.	(Bing, 1996) (Gillman, 2010)

3.3.4.7. Management audit

The management audit examines management and the human resource issues relating to the target (Gillman, 2010). Although the legal audit covers certain personnel issues, the issues are usually formal and technical therefore it is necessary to pay close attention to the management of an organisation. The importance of this should not be underestimated as the deal could have an adverse effect on management and the success of the company after the transaction is completed (Harvey and Lusch, 1995). The important areas to be covered in a management audit are summarised in Table 3.9.

Table 3.9 - Areas to be covered in a management audit

AREAS	DESCRIPTION	REFERENCES
Organisational / decision-making structure	Information should be gathered regarding the structure of the organisation and any problems which arise from the structure of the organisation. The analysis can be divided into two parts: (i) the hardware of the organisation (establishing whether the target has a clear operating structure that allows decisions to be made quickly); and (ii) the software of an organisation (determine how decisions are made within the target and what procedures are in place to facilitate decision-making).	(Harvey and Lusch, 1995) (Harding and Rouse, 2007)

Personnel evaluation	Interviews should be held with management to assess their attitude towards the deal. This area is important to ensure that talent is retained following the completion of the deal. This area must also determine the strength of the target's industrial relations.	(Harvey and Lusch, 1995) (Harding and Rouse, 2007)
Remuneration and benefit structure	The remuneration and benefit structure must be examined and tested for external competitiveness and internal equity.	(Harvey and Lusch, 1995)
Management infrastructure	The planning system of the target must be evaluated. Close attention must be payed to management advancement programmes and management's mechanisms to ensure that plans are met. This area should investigate the adequacy of the succession planning program.	(Harvey and Lusch, 1995)
Cultural assessment	A cultural assessment must take place to determine the differences and similarities between the target's culture, on the one hand, and the acquirer's culture, on the other, to assess the ability of the two companies to integrate.	(Harvey and Lusch, 1998) (Gillman, 2010)

3.3.4.8. Information systems audit

The purpose of the information systems audit is to gain an understanding of the target's information systems (Gillman, 2010). The importance of this audit has grown significantly over the recent years due to the rise of the role and importance of technology (Harvey and Lusch, 1995). The main areas to be covered in an information systems audit have been summarised in Table 3.10.

Table 3.10 - Areas to be covered in an information systems audit

Areas	Description	References
Hardware and software	The team must compile a list of all hardware. The hardware power must be examined, and vendor agreements should be scrutinized. The team must assess the stability of existing hardware and software, including licensing, ownership and ability to develop.	(Harvey and Lusch, 1995) (McDonnell, 2007)
Management matters	The cost of personnel, both internally and externally, needed to run the information system should be determined. The due diligence team must identify key staff members who are responsible for the information systems to determine who to retain.	(Harvey and Lusch, 1995) (McDonnell, 2007)
Control issues	An information system control audit should be carried out to confirm that the integrity and confidentiality of a company's data is maintained. Further, any threats posed by viruses or security breaches should be investigated to ascertain the potential risks.	(Gillman, 2010)
Confidential client information	A lot of companies keep databases relating to customer and supplier information. To avoid criminal and civil procedures, it is crucial to establish whether the target's databases are properly secured and that the data has been obtained legitimately.	(Gillman, 2010)
Internet	The way in which the target makes use of the internet to assists in internal and external communication should be examined.	(Gillman, 2010)

3.3.4.9. Reconciliation audit

Gillman (2010) describes the reconciliation audit as the step within the due diligence process whereby there is an undertaking to bridge other due diligence audit areas and valuations to undertake shareholder value analysis. The main objective of the reconciliation audit is to combine all the investigations conducted during due diligence to assist in making a buying decision (Gillman, 2010).

Gillman (2010) indicates that there are six steps in the reconciliation audit, namely:

- Step 1: Quantifying the effect of cash flows/earnings and net asset values discovered in other audit areas.
- Step 2: Gathering areas of risk found in the other audit areas.
- Step 3: Mitigating risks with the use of insurance, warranties, representations and professional involvement.
- Step 4: Determining the value of the entity.
- Step 5: Applying this value to the shareholder value analysis model to determine whether the deal is viable.
- Step 6: Ensuring that the findings and assumptions are applied to the post-acquisition situation

The reconciliation audit ties together all the audit areas of the integrated due diligence approach. The focus during this audit should be on projections and the valuation of assets and liabilities established in the other audits (Gillman, 2010). Based on the projections, profit warranties, risks and risk representations established from the other audit areas, the due diligence team is able to answer the three main questions of a due diligence process, namely: (1) whether to buy at all, (2) how much to pay, and (3) how to structure the acquisition (Howard, 1996; Gillman, 2010).

3.4. Chapter 3: Conclusion

An overview of the M&A landscape was provided to highlight the importance that M&A has on the macro-economic environment as well as on organisations embarking on M&A deals. The analysis of the M&A process assists in highlighting the importance that due diligence plays on the overall outcome of a M&A deal.

The conceptual literature review presented in this chapter has identified the major characteristics of M&A due diligence. Through analysing the purpose for conducting due diligence, it was found that due diligence fulfils certain legal requirements surrounding an M&A deal whilst also playing a key role in ensuring whether or not a deal should go ahead. The characteristics of due diligence uncovered include: timing, due diligence team, level and scope required. The different areas of due diligence were also analysed.

These characteristics are used in the next chapter to focus the systematic literature review on the important aspects of M&A due diligence.

Lastly, a prominent tool, the integrated due diligence approach, was introduced and analysed. This tool is utilised in the final DDM tool assembled in Chapter 7.

The next chapter discusses the systematic literature review process that was carried out. The results of the review are analysed and used to inform the development of the conceptual framework.

Chapter 4 – Systematic Literature Review

Document Framework								
CFA	Map data source	Categorize data	Identify concepts	Deconstruct & categorise concepts	Integrate concepts	Synthesis	Validation	Rethinking
Part	PART 1 Chapter 4			PART 2 Conceptual framework development			PART 3 Framework validation and revision PART 4 Development of a DDM tool	

The aim of this chapter is to create a solid theoretical basis from which the conceptual framework is developed. This chapter covers the process of carrying out a systematic literature review on the M&A due diligence field. The first three phases of CFA are addressed in this chapter. Prominent research is identified through the use of an unbiased search strategy. From these results, a selection process is followed whereby the number of publications is narrowed down to a final data set of publications for the review.

The dataset of publications is then systematically analysed to extract key concepts according to categories that were established based on the results of the conceptual literature review in Chapter 3. These concepts are then presented and analysed.

The fundamental knowledge on M&A due diligence is synthesised towards the development of a conceptual framework in Chapter 5. The key outcomes for this chapter is presented in Figure 4.1.

Key Outcomes	Describe the statistical landscape of M&A due diligence publications
	Explain the systematic literature review process that was followed.
	Identify the concepts within the areas of due diligence
	Identify the concepts relating to due diligence process factors
	Identify the principles and core concepts of due diligence

Figure 4.1 - Key Outcomes – Chapter 4

4.1. The need for a systematic literature review

Kitchenham (2004) explains that a systematic literature review is a process of identifying, evaluating and interpreting all available research which is relevant to a specific research question, topic area or phenomenon. The characteristics of a systematic literature review are summarised in Figure 4.2.

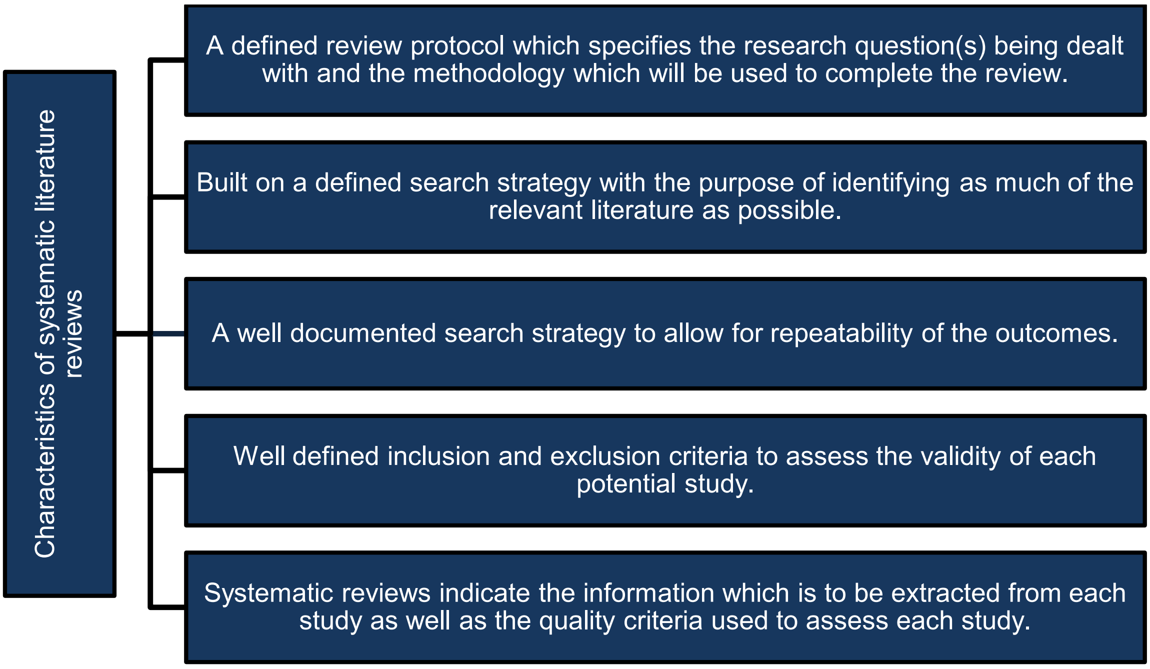


Figure 4.2 - Characteristics of a systematic literature review

There were three main reasons as to why a systematic literature review was undertaken.

1. A wide range of multidisciplinary literature around M&A due diligence is available. It is therefore necessary to conduct a detailed literature review which would allow for the comprehensive evaluation and interpretation of all the research which is relevant to M&A due diligence. A systematic literature review provides a thorough mechanism which ensures that the necessary literature is not ignored, and that bias is minimised during the literature search.
2. The systematic literature review plays a significant role in the design and development of the framework.
3. The review helps to identify and summarise existing findings within the area of M&A due diligence whilst also assisting in identifying where gaps in the literature exists.

One of the most important aspects of a systematic literature review is its replicability and transparency (Baumeister and Leary, 1997). The process of conducting the review is explaining in Section 4.2.

4.2. Conducting the review

4.2.1. Identification of research

The review aims to find as many primary studies which relate to the topic area as possible by using an unbiased search strategy. Data was acquired primarily using two search engines, namely Google Scholar and Scopus. These databases were selected due to their vast collections of business and management related journals, articles, conference proceedings, reports, reviews and notes.

A search strategy was developed to scan these databases for relevant literature. The search strategy included various search terms with alternating key words to ensure that important literature is not overlooked. There were two primary domains used to assign keywords utilised in the search terms, which were: (1) the primary area or sector (mergers and acquisitions, M&A) and (2) the secondary area or sub-sector (due diligence). The searches were also expanded to include secondary domain keywords such as “Methodology”, “Framework”, “Process”, “Tools”, “Data”, “Outcomes”, and “Costs”. These secondary domain keywords were used in various combinations; however, it was found that the results remained relatively consistent with only minor changes recorded.

The initial search results are displayed in Table 4.1. The results are displayed for both databases, Google Scholar and Scopus. There were more than 1000 publications identified in this initial search with the results including published journal articles, conference papers, reports, briefs, reviews, short surveys and notes.

Table 4.1 - Initial Search Results

Search Terms	Scopus	Google Scholar
('Mergers and Acquisitions') OR ('M&A') AND ('Due Diligence')	181	24400
('Mergers and Acquisitions') AND ('Due Diligence') AND ('Methodology' OR 'Framework' OR 'Process')	90	15700
('Mergers and Acquisitions') AND ('Due Diligence') AND ('Tools' OR 'Data' OR 'Processes')	89	15100
('Mergers and Acquisitions') AND ('Due Diligence') AND ('Outcomes')	70	6160
('Mergers and Acquisitions') AND ('Due Diligence') AND ('Costs')	30	12600

4.2.2. Selection of studies

The data selection process was used to reduce and filter the number of publications. From this process, a comprehensive literature database was established as the basis of the systematic literature review. The data selection process that was followed is illustrated in Figure 4.3. The green blocks indicate the number of studies which were included based on the criteria mentioned in the respective block whilst the red blocks indicate the studies which were eliminated based on the exclusion criteria indicated in the respective block.

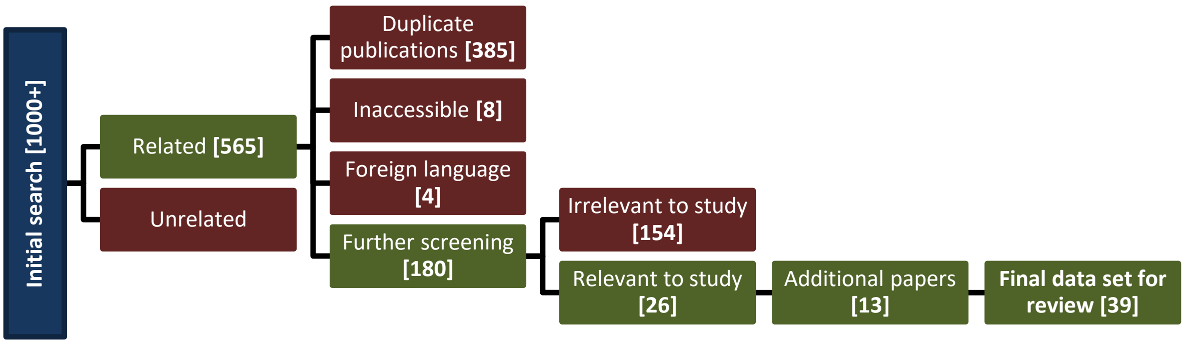


Figure 4.3 - Data selection process

The number of duplicated publications removed amounted to 385. A further four publications were removed on the basis of being foreign language. Another 8 publications were removed as they were inaccessible. A screening process of the remaining 180 articles was carried out.

Using the title and abstract of the papers, a screening process was used to filter the publications. Two factors were used to assist in determining whether the publication under examination would be accepted for review, these factors are shown in Table 4.2. A score for each factor was allocated to the publication based on the publication's relevance to the factor in question. A score of 0 was allocated if the publication was irrelevant to the factor, 0.5 if it was partially relevant to the factor and 1 if it was relevant to the factor. To assess whether a publication was relevant or not, the two scores were added together. Papers which had a total score of two were deemed relevant and therefore added to the final literature database.

Table 4.2 - Factors used in the screening process for publications

Factor	Description
1	Addresses due diligence in some significant way
2	Identifies/examines/proposes concepts/theories/frameworks/models concerning due diligence within M&A

Finally, the ancestry approach was employed to add additional papers to the literature database that had been created. This approach involves tracking of research cited in the literature that has been obtained already (Cooper, 2018). In total, 13 papers were added to the literature database using this approach.

The complete list of publications included in the systematic literature review is included in Addendum A.

4.2.3. Data extraction and monitoring process

Information extracted from the literature database were sorted into six categories, namely: (i) paper characteristics, (ii) empirical elements, (iii) areas of due diligence, (iv) due diligence process factors, (v) due diligence concepts and principles, and (vi) observations.

Microsoft Excel was used to code the selected studies as they were reviewed. Coding of these studies allowed the reviewer to gain an understanding of the underlying concepts of the field of due diligence whilst also picking up on certain trends from the data being coded. The process of coding involved the allocation of a specific code or category component to a concept or factor identified within the publication under review. Table 4.3 displays the code that was assigned to each relevant concept or factor.

Table 4.3 - Data collection categories and components/attributes

Category	Component/Attribute	
Paper characteristics	Title of document	Author(s)
	Year published	Document type
	Document source	Citations
	Geographic focus of document	Industry focus
Empirical elements	Data collection methods	
	Validation techniques	
	Gap in literature addressed	
Areas of due diligence	Financial [FD]	Legal [LD]
	Tax [TD]	Environmental [ED]
	Regulatory [RD]	Operational [OD]
	Market [MAD]	Human resources [HRD]
	Cultural [CD]	Strategic [SD]
	Marketing [MD]	Intellectual property [IPD
	Technology [TD]	R&D [RDD]
Due diligence process factors	Risk factors [RF]	Success factors [SF]
	Tools [T]	Planning [P]
	Steps [ST]	

Due diligence concepts and principles	Best practices [BP]	Considerations [CO]
	Strategies [S	Costs [C]
Observations	Conclusions drawn by authors of the paper	
	Oversights in paper	

4.2.4. Data synthesis

Following the completion of the data extraction stage of the systematic literature review, the results were collated and summarised. Conclusions were drawn from the results. Section 4.3 to Section 4.6 covers the data analysis and synthesis phases of the systematic review in depth.

4.3. Data results

Following the completion of the data extraction process, the information collected was then analysed. The following two sections provide a summary of the data gathered. Section 4.3.1 focusses on the descriptive statistics of the information collected to assist in providing a context to the data. Section 4.3.2 introduces the concept identification stage of the systematic literature review.

4.3.1. Descriptive statistics

In this section, the descriptive statistics of the systematic literature review are presented and discussed. Various bibliometric indicators are presented to gain a better understanding of the analysis.

Figure 4.4 shows the timeline and composition of the papers included in the review. Articles make up the bulk of the papers at 62% followed by reviews at 23%. The majority of the papers (82.1%) in the review were published after 2001 therefore indicating that information obtained from the papers presents an accurate view of the field of due diligence today.

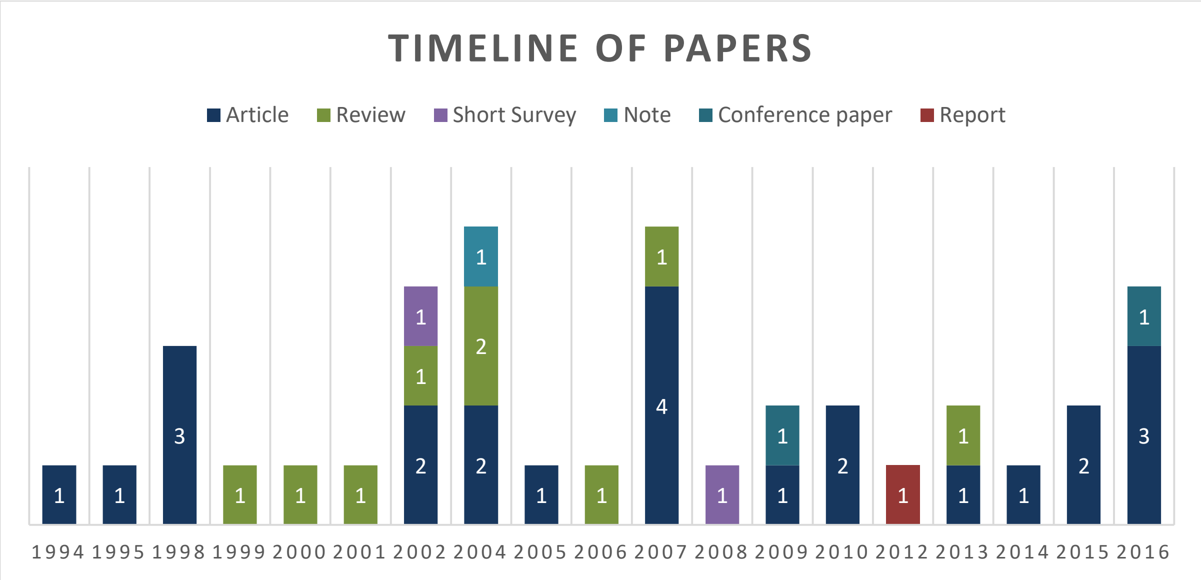


Figure 4.4 - Timeline and type of papers included in the study

Figure 4.5 provides a breakdown of citations for each publication type. It is clear that articles account for the highest number of citations.

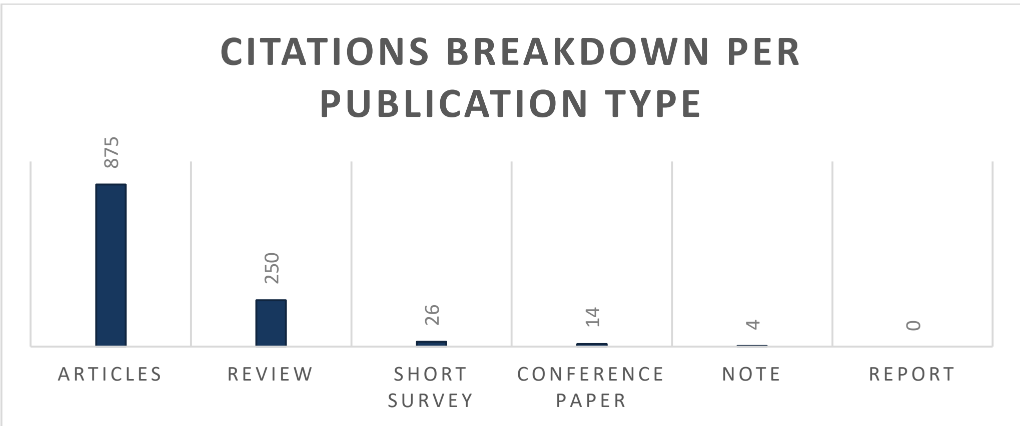


Figure 4.5 - Citations per publication type

Upon closer analysis of the citations for all publications, the majority of citations for the publications reviewed come from just eight sources. These sources all contain more than 50 citations each, as seen in Figure 4.6. This indicates that there is an emphasis on the work of certain authors whilst indicating that the body of knowledge surrounding M&A due diligence is relatively limited. The top authors who are repeatedly cited include: (1) Angwin, (2) Breitzman and Thomas, (3) Harding and Rouse, (4) Harvey and Lusch, (5) Cullinan, Le Roux and Weddigen, (6) Kumar and Blomqvist, (7) Horwitz, and lastly (8) Lovallo *et al*. All citation statistics were obtained from Google Scholar to ensure consistency.

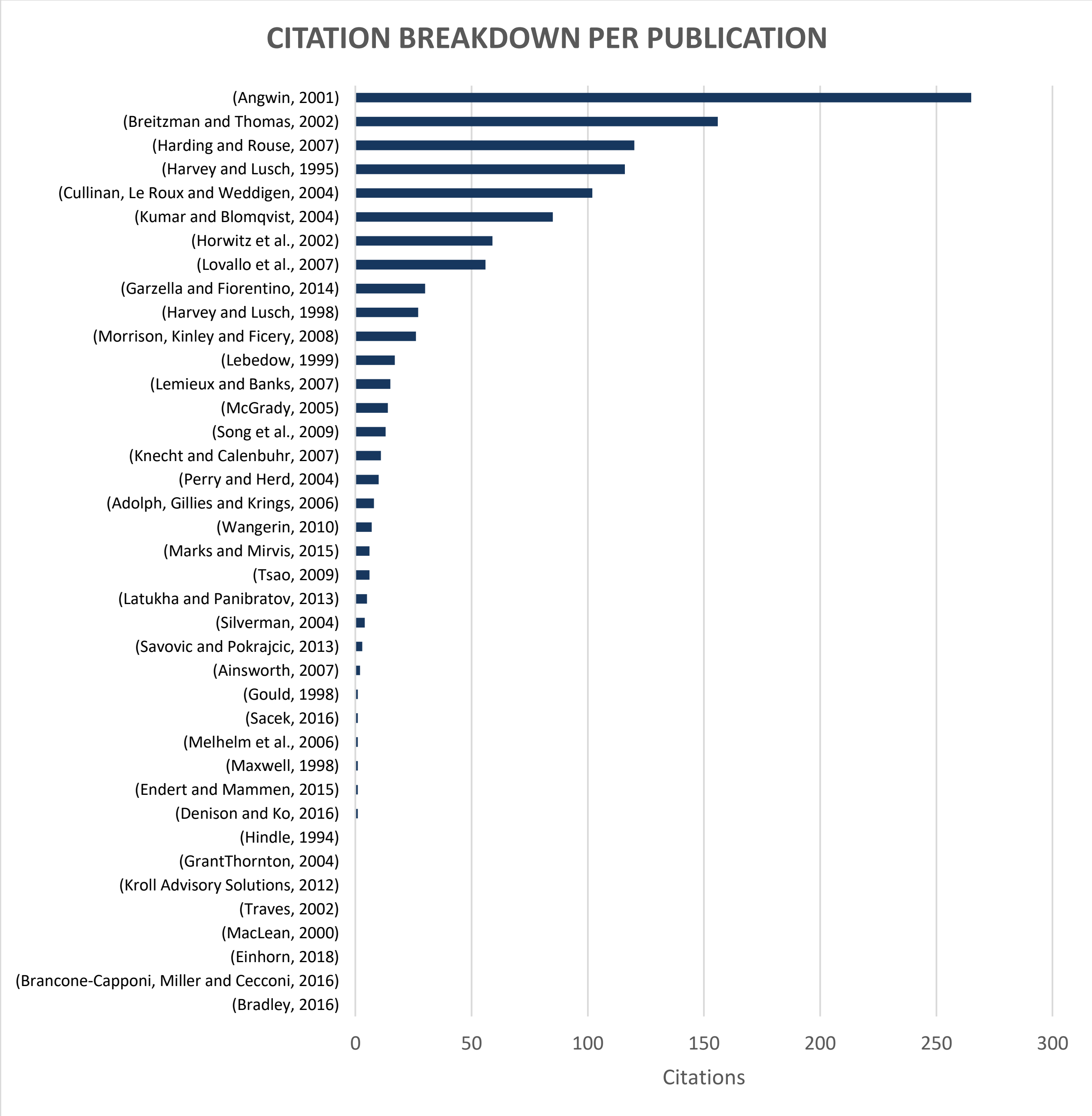


Figure 4.6 - Citation breakdown per publication

4.3.2. Concept identification

Following the completion of the review of papers, three important fields were identified:

1. The different areas of due diligence investigations
2. Due diligence process factors
3. Due diligence concepts and principles

The identification and naming of concepts which fall into the three fields identified is presented and explained in the remaining sections of this chapter. The concepts which were extracted from the dataset of papers are then discussed and analysed according to their characteristics and attributes.

4.4. Areas of due diligence

There are different areas of focus in the due diligence process. Traditional areas of due diligence include financial, legal and tax due diligence. Modern due diligence has expanded to include operational, HR, cultural, marketing, environmental, technology, market and strategic areas. While completing the review, it was found that there were additional areas of due diligence which were mentioned. These areas include R&D due diligence and IP due diligence. Figure 4.7 provides a breakdown of the different areas of due diligence which were covered in this review as well as an indication of how many factors or concepts were uncovered for each area of due diligence.

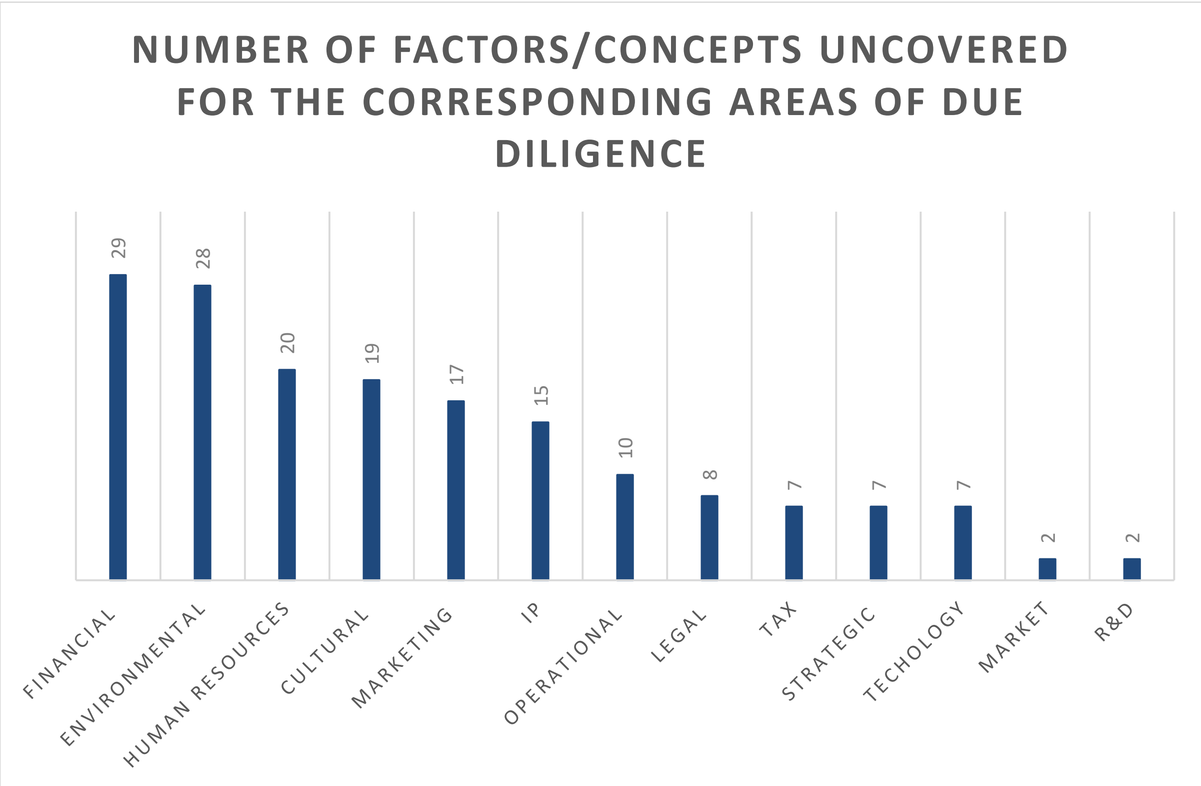


Figure 4.7 - The number of factors/concepts uncovered for each area of due diligence

From Figure 4.7,based on the number of factors or concepts extracted from the papers reviewed, financial due diligence weighs heavily in terms of importance. The other areas of due diligence that appear to hold significance are environmental, marketing, cultural, and IP. It should be noted that areas of due diligence, such as, legal and tax may have stringent guidelines in place that may be determined by the competition legislation of a particular country (or region). It is therefore not covered as comprehensively in academic literature. The literature seems to place more focus on those areas of due diligence which are often overlooked.

4.4.1. Financial

The purpose of financial due diligence is to assess the target's current financial situation, investigate the past and projected financial performance of the target and understand the character of the target's operation in financial terms (Maxwell, 1998; Savovic and Pokrajcic, 2013). To understand the financial situation of the target, it is necessary to examine the financial statements or reports of the target (Harvey and Lusch, 1995; Song *et al.*, 2009). The information which is analysed is sourced from the target's annual financial reports, medium-term/quarterly performance reports, management reports, as well as any other financial reports which are either publicly available or made available by the target. The purpose of analysing and scrutinizing these financial reports are to certify the authenticity and reliability of these reports as well as to estimate the actual value of the target (Song *et al.*, 2009).

Ainsworth (2007) recommends various sources of information in which to gather financial data about the target. The first is financial reports, such as financial statements and trading updates. These reports are freely available if the target is a listed entity. If the target is not listed, the availability of this information can vary depending on (i) the location of the target as laws on disclosing financial statements vary across different jurisdictions, and (ii) the willingness and/or ability of the target to share these documents (Ainsworth, 2007). In this regard, a target may not have financial records that are maintained and/or readily available.

The second source of information is investment analyst brokers' notes. These notes usually provide a good indication of the financial health of a company; however, these notes are only published for listed entities. The availability of these notes depends on the broker as some may only be available to clients whilst others are available at a premium price. Sources for broker notes include Reuters, Bloomberg and Tomson Financial (Ainsworth, 2007).

The third source of information is credit rating agencies. These agencies create reports on the creditworthiness of a company. There are numerous credit rating agencies. The major players in this field are Standard & Poors, Moody's and Fitch (Ainsworth, 2007).

The final source of information suggested by Ainsworth (2007) is the share price performance . Data on share price performance can be accessed freely through stock exchange websites or via prominent companies like Bloomberg, Reuters, and Thomson Financial, which offer this data at a premium price.

Song *et al.* (2009) suggest various financial report analyses which are useful in examining different aspects of the target. These analyses are summarised in Table 4.4.

Table 4.4 - Financial report analyses useful in financial due diligence (Song et al., 2009)

Analysis	Reason for Analysis
Ratio analysis and trend analysis	These analyses assist in estimating the rationality of the target's earning capacity, credit capacity, capital structure and efficiency in application of funds (Song *et al.*, 2009).
Analysis of the right-hand side of the balance sheet	This analysis allows the acquirer to identify the target's stock equity structure, debt-to-equity ratio, and floating-debt-to-long-term-debt ratio. The analysis also enables the acquirer to calculate the target's capital costs and degree of financial risk to understand if financial synergies exists by reducing capital costs or decreasing risk (Song *et al.*, 2009).
Asset structure analysis	This analysis aids the acquirer in finding any unique resources which the target may possess which may make the deal more attractive (Song *et al.*, 2009).
Statement of cash flows analysis	Through this analysis, the acquirer can calculate the sum of free cash flows of the previous years and compare it with the cash required for the investment to ascertain whether the target is able to achieve a sustainable development (Song *et al.*, 2009).
Share price analysis	This analysis is only relevant if the target is a listed company. The reason for this analysis is to determine whether the share price of the target is overestimated or underestimated (Song *et al.*, 2009).

During financial due diligence, various aspects of the target are evaluated. Once an appropriate value has been calculated or assigned to these aspects, the net present value (NPV) for the target may be calculated. This indicates whether it is financially sound to pursue the target. Hindle (1994) suggests five steps which are common in NPV oriented methods of evaluation, namely: (1) determine the market value of the target's assets, (2) perform calculations and estimations of potential future performance, (3) determine whether it is probable that the target will generate free cashflows, (4) develop an appropriate rate for discounting free cashflows, and (5) obtain the NPV of the deal and proceed if positive.

4.4.2. Legal

Legal due diligence must assess the condition of the target in four dimensions, namely: (1) corporate organisation, (2) ownership of assets and exposure to associated liabilities, (3) actual and potential litigation, and (4) regulation (Bruner, 2004). Ainsworth (2007) adds that the shareholder structure of the target should also be analysed to determine beneficial ownership in order to assess whether the target can be validly transferred to the acquirer and/or can be transferred free of any encumbrances. The four dimensions are discussed in detail below.

- The purpose of the first dimension, corporate organisation, is to investigate the accuracy and validity of the warranties and representations of the target. In addition, it requires the complete disclosure of company incorporation documents and material agreements, such as, existing contracts and sales and purchase agreements (Bruner, 2004; Savovic and Pokrajcic, 2013). It is imperative that the acquirer determines whether the target actually exists and has the legal status to back up its existence in the form of a certificate of incorporation or similar documents (Ainsworth, 2007).
- The purpose of the second dimension, ownership of assets and exposure to associated liabilities, is to assess the ownership situation of assets and to ensure that the target has legal valid title (owns) the assets that are intended to be transferred to the acquirer. This dimension involves the examination of the target's titles, deeds, patents, proofs of purchase and any other ownership documents (Bruner, 2004). Furthermore, it is crucial for the acquirer to examine all past transactions which the target was a part of as these transactions could carry liabilities that could stem from representations and warranties associated with the past transactions (Bruner, 2004).
- The purpose of the third dimension, actual and potential litigation, is to determine if the existence of any liabilities of the target that the acquirer may assume if the transaction process (Silverman, 2004). The third dimension involves examining all past and pending litigation at the target (Bruner, 2004).
- The purpose of the fourth dimension, regulation, is to determine whether the target is legally compliant (Bruner, 2004). Any risks in the form of non-compliance should be exposed in this process as the acquirer could potentially face fines, penalties or the loss of a license should the deal go ahead with unchecked risks. In terms of competition or antitrust regulation, the focus of enquiries should be on (i) merger filing compliance by the target in relation to prior transactions that the target may have participated in, and (ii) the degree of market or information sharing that the target has engaged in with its competitors (Savovic and Pokrajcic, 2013). The outcome being sought is an assessment of any competition risks presented by the target's activities and an assessment of the enforceability of the target's contracts (Savovic and Pokrajcic, 2013).

4.4.3. Tax

Tax due diligence focusses on compliance with tax laws and regulations, existing tax levels, liabilities and arrangements (Bruner, 2004; Savovic and Pokrajcic, 2013). Tax due diligence is generally carried out by an auditor (Endert and Mammen, 2015). Tax due diligence is also used to identify opportunities for tax reductions and to optimise the position of the combined business (Bruner, 2004; Savovic and Pokrajcic, 2013).

One of the primary concerns of tax due diligence is to determine if the target has unpaid taxes and to investigate any possible tax fraud (Bruner, 2004). Tax evasion is illegal whereas tax avoidance is not; however, tax avoidance can often be aggressively pursued which poses the risk of future tax liabilities for the acquirer (Bruner, 2004; Savovic and Pokrajcic, 2013; Endert and Mammen, 2015).

The tax laws of a country are often subject to frequent changes and this makes the investigation into the target's tax situation quite difficult (Endert and Mammen, 2015). The investigations have to take into account different tax regimes from the past and present as well as any future changes which may occur in the tax laws. Furthermore, tax requirements of other countries may have to be taken into account if the deal crosses international boundaries (Endert and Mammen, 2015).

Endert and Mammen (2015) identify three factors which the economic advantage of a deal relies on from a tax perspective. The first is the potential tax risks and opportunities which have been identified. Secondly, the costs of conducting the tax due diligence. Lastly, the tax savings which may be received from the transaction less the requisite restructuring costs incurred during the integration stage of the transaction (Endert and Mammen, 2015).

Harvey and Lusch (1995) discuss the concept of 'goodwill' due to the tax consequences of purchasing an organisation. Goodwill is the classification for tax purposes of the amount paid for an acquisition above the tangible assets of the company. Any 'soft' assets which are attributed are written off over a period of 20 years; however, if it can be proven that an intangible asset has value, it can be written off as part of the purchase price of the target. Thus, the measurement of intangible assets is critical in the due diligence process. If the value of the intangible assets of the target are not quantified, the true value of the acquisition cannot be determined which may pose significant tax consequences in the future (Harvey and Lusch, 1995).

4.4.4. Environmental

The aim of environmental due diligence is to issue an opinion of compliance with respect to environmental law and regulations, calculate the costs of detected environmental liabilities and reduce the risks of legal litigations (Traves, 2002; Savovic and Pokrajcic, 2013; Brancone-Capponi, Miller and Cecconi, 2016). Further, the investigations should determine the target's compatibility with the buyer's environmental strategy as well as identify any cost improvements in the environmental processes such as reducing the inefficiencies in the disposal of waste (Bruner, 2004).

Knecht and Calenbuhr (2007) describe procedure for identifying, measuring and describing the environmental performance of a target. The procedure starts with a screening of the industry's business landscape for any relevant and significant environmental risks where relevance speaks to the level of possible risk a company may face due to the sector it operates in and significance is a result of the target firm's value chain. The primary goal of the screening is to inform the due diligence team on whether there is a need for immediate action regarding the deal or for further investigation. Following the initial screening and if the indication of relevance is strong enough, the due diligence team should carry out a detailed investigation of all critical issues and business activities. This stage of the procedure usually involves on-site audits of the target company which makes it easier for the due diligence team to investigate options of mitigating any risks identified. Finally, the due diligence team should adequately prepare the integration team by providing a detailed report on all risks and liabilities identified during the investigation as well as providing the necessary information to allow the integration team to deal with any issues that may arise (Knecht and Calenbuhr, 2007).

MacLean (2000) proposes incorporating a review of the environmental management system (EMS) of the target in the environmental due diligence process. There are two reasons as to why an EMS should be assessed during the due diligence process, namely, (1) future liabilities can be minimised by understanding how the target maintains environmental compliance, and (2) an action plan can be developed to aid successful assimilation between the two organisations' operations (MacLean and Goldstein, 2000). There are six factors which Maclean (2000) suggests to adequately assess an EMS:

1. Determine if an EMS exists for the target and to what extent the EMS is integrated into facility operations.
2. Determine the level of sophistication of the EMS by analysing the format and structure of the system.
3. Examine how the EMS is communicated to employees and the level of understanding amongst employees regarding the system.
4. Determine any future issues which may consume resources or limit plant expansions by investigating external stakeholder communications.
5. Understand that not all resource issues may be immediately obvious to the investigator.
6. Investigate whether the EMS is regularly audited and if corrective action processes take place.

Traves (2002) recommends incorporating strategic environmental management (SEM) concepts during environmental due diligence as it provides a guide for securing crucial information through the integration of environmental issues with business planning efforts. The structure of SEM ensures that all environmental issues identified during the review are properly tracked and can be adequately addressed during the integration stage.

Another suggestion by Traves (2002) is to compartmentalize the environmental due diligence process. This can be achieved by integrating the environmental assessment with other due diligence activities like asset valuations or financial reviews. By doing this, the environmental issues can be flagged as the visibility of these issues will increase in the due diligence process. Further, there is the added benefit that the time needed to obtain information can be reduced and cooperation will be increased.

Environmental due diligence should also assess any commercial and residential real estate held by the target. Brancone-Capponi, Miller and Cecconi (2016) identify three main goals in the assessment of commercial and residential real estate. Firstly, any past or present activities associated with soil contamination should be verified to identify any economic liabilities as well as site use limitations. Secondly, the presence of onsite hazardous substances or substances which are subject to restrictions should be verified. Lastly, all legal compliance at the time of the transaction that could imply responsibility for the acquirer should be verified.

A report by Grant Thornton (2004) recommends an assessment of operational health and safety (OHS) for the target. This assessment should be carried out by a specialist consultant. While this assessment is not necessary, it provides a good demonstration of corporate social responsibility which can be a positive factor for the combined organisation in the long run.

4.4.5. Operational

Operational due diligence is the process by which a potential buyer reviews the manufacturing or service operations of the target (Bruner, 2004). This is done to assess any technical threats present, determine the sustainability of current methods in use, identify any opportunities for improvements and evaluate if investments are required (Savovic and Pokrajcic, 2013). Song *et al.* (2009) suggests analysing the relativity of the parties' business lines in order to allow the acquirer to determine if the target fits in with the acquirer, and whether operational synergies can be achieved between the two organisations.

The specific aspects of the target investigated during an operational due diligence can vary depending on the industry. The process should be executed by operational specialists and experts who understand the industry (Morrison, Kinley and Ficery, 2008). These experts should identify potential new sources of value which can affect the valuation of the target. The personnel involved with carrying out operational due diligence should identify key risks in the target's operations, look for areas of potential investment, model the to-be operating state and all scenarios which are relevant (Morrison, Kinley and Ficery, 2008).

Bruner (2004)suggests several areas in which operational due diligence should focus. The target's strength of operations should be analysed in terms of asset efficiency, cost, flexibility, quality, innovation and the condition of property, plant and equipment. The investigation should seek out opportunities for improvement, potential cost reductions and asset reduction synergies. The target's relationship with unions or other workforce related issues should be investigated. All technological change risks should be identified. The investigation should determine the compatibility of the target's operational policies with the acquirer. Finally, an analysis on the outlook of future performance should be carried out which takes into account operating cost trends, efficiency trends, inventory management and any other relevant operational aspects (Bruner, 2004).

4.4.6. Market

Market due diligence assesses the market dynamics for the target's market, the target's competitive position and the target's commercial prospects (Savovic and Pokrajcic, 2013). The investigations should uncover how sustainable future profits are and formulate a strategy for the combined business (Savovic and Pokrajcic, 2013). Maxwell (1998) states that an acquirer should also analyse the target's customer-buying habits as well as the potential for critical changes in the market.

Lebedow (1999) and Maxwell (1998) identify that a key aspect of market due diligence is characterizing the size of the market in which the target operates as well as the growth prospects for that market. To assist in doing this, the author suggests defining existing and evolving products and trends and assessing the current and prospective competition. Further, the author suggests interviewing the target's customers, distribution channels and competition as well as indicating the anticipated response of existing competitors to the acquirer's expansion in the marketplace through the M&A (Lebedow, 1999).

The investigations should include a market assessment across all market segment in which the target exists. The market assessment should focus on; (1) determining the size and calculating a three to five year growth outlook for each market segment, (2) Determining the product requirements, features and specifications for each market segment, (3) Describing each of the market segments predominant buying influence, (4) Defining the breadth of product line which is necessary to be successful, (5) Characterizing the competitive situation within each market segment and lastly (6) Determining the profitability and ownership structure of the target's competitors within the market (Lebedow, 1999).

Information regarding the target's market can be obtained from a variety of sources. Lebedow (1999) suggests conducting a comprehensive review of trade literature which provides the insights necessary in forming the questions which will be posed to the target's customers, distributors and competitors. Ainsworth (2007) suggest two sources for gathering information on the target's market; press comment and blogs. The author suggests using a news aggregate such as Factiva Lexis Nexis and Thomson Dialog to carry out a comprehensive search. The author also suggests using online blogs as a source of information.

Lebedow (1999) suggest a communication process to be followed by the due diligence team when conducting market due diligence. There are two phases; (1) the analysis of results and development of primary conclusions which must be reviewed regularly by the due diligence team and tested throughout the interviews carried out during the market assessment, (2) regular formal review meetings with management while the market assessment takes place to decide whether to proceed, redirect and terminate the deal (Lebedow, 1999).

4.4.7. Human resources

This area of due diligence is often overlooked; however, it has now been recognised as one of the critical areas of due diligence which must be covered during the investigation into the target. HR due diligence covers aspects such as the adequacy of talent and leadership, exposure to workforce problems (union issues), inefficiencies in compensation and benefits, exposure to benefit claims, the compatibility of organisation and HR policies, employment terms and conditions and the level of commitment and motivation amongst the workforce (Bruner, 2004; Latukha and Panibratov, 2013; Savovic and Pokrajcic, 2013).

There are many issues when it comes to HR that HR due diligence must address. It is not always possible to retrench employees due to employment contracts, union contracts, and local labour laws (McGrady, 2005). HR due diligence must investigate the target's policies on pay, benefits, prerequisites, holidays, leave days and salary ranges as these are all issues. Further, Mcgrady (2005) suggest investigating any outstanding workers' compensation claims, unfair labour practice charges, civil rights claims and any other labour disputes at the target. Other factors which should also be investigated include any benefit plans and liabilities for underfunded pension plans and previous filings with the relevant labour and tax authorities of the country to ensure that the target has complied with all regulations and laws. Health and medical schemes, insurance and retirement packages for the target's employees should also be scrutinized to assess what liabilities the acquirer will be assuming (McGrady, 2005).

There are clearly many factors that need to be investigated during HR due diligence. To ensure that all aspects have been covered, Latukha and Panibratov (2013) propose that the HR representative, with the help of the due diligence team and HR department of the acquirer, put together a checklist which includes an examination of each functional area of HR management and identifies the responsibilities within each of these areas. This checklist should be regularly evaluated and adjusted to fit the needs of the acquirer.

Harding and Rouse (Harding and Rouse, 2007) identify two issues which must be addressed during HR due diligence. The first issue is whether the target has a coherent and functioning organisational structure which allows it to make decisions and execute them effectively. The second issue deals with the internal dynamics of the target. In addressing these two issues, the due diligence team should analyse the hard data of the target, including, organisation charts, head counts and job descriptions. From this analysis a profile of the target's basic organisational structure can be created which identifies the reporting lines, tracks how decisions are made and implemented, and describes the mechanism for quality control of decision making. The team should also approach decision makers in the target to compare their findings and to determine if practice and theory align, as well as expose the strengths and weaknesses of the target's HR systems (Harding and Rouse, 2007).

Part of HR due diligence is to identify and make recommendations on the employees that should be retrenched, on the one hand, and retained, on the other. When identifying the employees that should be retrenched, it is important to take into account performance reviews, interview third parties, such as, recruiters or former executives, and assess the track records of employees and executives (Harding and Rouse, 2007). Deciding on who to retain can be based on many factors such as talent, performance and capability. These factors will assist the team in deciding on where to place employees in the organisation following the acquisition. Retaining employees from the target can also help to send a positive message to those in the target that they are not at "risk" as a result of the transaction. It can also assist in supporting the continuity of the target's organisational culture, and with integrating the organisational culture of the target with that of the acquirer (Harding and Rouse, 2007).

4.4.8. Cultural

Cultural differences between the target and the acquirer are believed to contribute towards the high failure rate of M&A transactions (Lovallo *et al.*, 2008; Denison and Ko, 2016). Due diligence investigations on the target's culture should aim to assess resemblance on three levels, namely: (1) between actions and aspirations, (2) between the cultures of the acquirer and the target, and (3) between the target's culture and its strategic threats and opportunities (Bruner, 2004). Denison and Ko (2016) identify two main objectives of cultural due diligence, namely: (1) determining whether the cultural difference (or lack thereof) between the target and the acquirer is sufficient reason to not proceed with the deal, and (2) to highlight the culture gaps which exist and to clarify all integration challenges that the differences in culture pose to better prepare the acquirer for those challenges. It is beneficial to conduct cultural due diligence early on in the due diligence process to assist in understanding the degree of cultural alignment and to assess whether the combination of different cultures can be successful for the merged organisation (Savovic and Pokrajcic, 2013; Marks and Mirvis, 2015).

Denison and Ko (2016) propose 4 phases of a cultural due diligence investigation. Firstly, the acquirer must understand its own organisational culture. This requires the acquirer to identify the strengths that they are trying to build, on the one hand, and the weaknesses that they are trying to overcome, on the other, through pursuing the transaction. Secondly, the end state of the organisation should be clarified. In other words, the acquirer should determine how much change there will be in both the target and their own organisational culture. This task ensures any differences in expectations on the degree of change in the merged organisation can be effectively managed. Thirdly, the acquirer should conduct a data-driven cultural due diligence. Although there is usually limited access to data to fully understand the target's culture, the acquirer can focus on unobtrusive measures and maximise the use of existing and readily available data. Lastly, there must be a plan for transition. It is the responsibility of the due diligence team to communicate the outcome of the investigation and to provide recommendations on how to best manage the cultural differences between the two organisations and ensure a smooth transition (Denison and Ko, 2016).

There are five integrated mechanisms of organisational culture which may influence the organisation's performance. The five mechanisms are: (1) organisational direction and shared purpose,(2) early employee involvement, (3) consistency, (4) the impact of a strong culture on organisational performance, and (5) integration of a widely held system of norms and expectations (Horwitz *et al.*, 2002). Horwitz *et al*. (2002) suggest that potential outcomes for the organisation following cultural due diligence include member assimilation, integration separation and de-culturalisation.

Marks and Mirvis (Marks and Mirvis, 2015) as well as Harding and Rouse (Harding and Rouse, 2007) suggest the use of cultural surveys to examine the cultural fit between the two organisations as part of the cultural due diligence process. In these surveys, employees are asked to rate their own organisation's culture along specified dimensions. For each dimension, the employees are also asked what they would like the combined organisation to look like. The survey data can reveal the cultural differences between the two organisations as well as where potential clashes in culture may occur (Harding and Rouse, 2007). The analysis of the surveys should be taken one step further by grouping managers from both organisations in a workshop. These managers should be asked to jointly review the data. This can lead to agreement on various aspects of the culture of the two organisations and as such becomes a rallying point for the deal (Harding and Rouse, 2007).

4.4.9. Strategic

Strategic due diligence explores whether the potential value of the merged company justifies the investment being made as well as the capability of the combined organisation to realise this value (Adolph, Gillies and Krings, 2006; Savovic and Pokrajcic, 2013). It tests the strategic rationale behind a deal with two broad questions. Is the deal commercially attractive? And are we capable of realizing the targeted value? (Adolph, Gillies and Krings, 2006). Strategic due diligence explores whether the target offers a proprietary or competitive advantage over its competitors (Maxwell, 1998).

Conducting strategic due diligence ensures that the due diligence process being followed for the deal is best suited for the task at hand. Strategic due diligence forces an acquirer to tailor the due diligence process to address the issues and potential integration problems for each specific deal (Adolph, Gillies and Krings, 2006).

Strategic due diligence has a hand in setting the purchase price of the target. Strategic due diligence forces the due diligence team and management to consider the potential deal value and if it justifies the investment being made and how likely it is that the acquirer can realise this value. This helps in setting the purchase price of the target as the acquirer can demand a price which is proportional to the level of risk uncovered during the due diligence process (Adolph, Gillies and Krings, 2006).

4.4.10. Marketing

Marketing due diligence assists in finding the strategic fit between the target and acquirer. It employs an analytical methodology which assesses the target's sales and marketing strengths and weaknesses to ensure the deal meets the financial, strategic and operational objectives of the acquirer (Gould, 1981). A key aspect of marketing due diligence is to study the deal through the eyes of the customer, this is critical to market-facing businesses (Kumar and Hansted Blomqvist, 2004).

Marketing due diligence should analyse factors such as the strength of brand, franchise or goodwill with customers, the strength and effectiveness of the target's marketing and sales divisions, compatibility of sales and marketing policies with the acquirer, revenue enhancement opportunities and potential synergies, exposure to product or service warranty claims, and competitive sales and marketing advantages compared to competitors (Gould, 1981; Bruner, 2004).

Kumar and Blomqvist (2004) suggest establishing a brand team who will conduct an assessment of the target's brand or brand portfolio. The assessment assists the due diligence team in determining how to approach the brand issues and in deciding on whether a target should be acquired. As part of the assessment, the authors propose assigning a financial value to customer relationships. Customer relationships are a function of their interactions over time with the product and brand. Therefore, by assigning a financial value to customer relationships, the due diligence team can understand brand value and measure its role in the overall valuation of the target (Kumar and Hansted Blomqvist, 2004). The brand assessment should also investigate different branding options by analysing the target on a set of predefined criteria. The criteria should align brand strategy to the acquirer's business strategy (Kumar and Hansted Blomqvist, 2004).

Brands can be valued on the basis of expected cash flows attributed to the brand and discounted by a brand-specific rate (Kumar and Hansted Blomqvist, 2004). Following the valuation of the brand, the due diligence team should create a brand strategy which supports the acquirer's overall objectives and to deal with any problems that can arise with the brand (Kumar and Hansted Blomqvist, 2004).

Gould (1981) identifies three general types of qualitative sources of value for marketing due diligence; people resources, product resources and process resources. People resources can include the customer base, marketing staff, sales force, distributors and the marketing culture of the target. Product resources can include market share, brand power, product innovation, marketplace perceptions of the target and its products and competition levels. Process resources can include marketing and sales planning, advertising and marketing communications, marketing information systems, technology applications and customer databases, relationships with key external suppliers of marketing services and internal communication channels (Gould, 1981). There are also three ratios to assist in analysing qualitative sources of intangible asset information, namely: (1)marketing investment ratios, (2) marketing productivity ratios, and (3) marketing operations efficiency ratios (Gould, 1981).

4.4.11. Intellectual property

IP due diligence focusses on the intellectual and intangible aspects that can be owned in the legal sense. Patents, copyrights, trademarks, trade secrets, software and any other IP of the target should be investigated and analysed. Further, these investigations should uncover any infringement claims on the target (Silverman, 2004; Bruner, 2004; McGrady, 2005).

Investigators should track the leading inventors of the target as in most organisations, the majority of patents are produced by a small number of key scientists or inventors (Breitzman and Thomas, 2002). There is a skewed distribution of inventor or scientist productivity, thus there is a risk that if these key personnel are lost during the M&A process, the acquirer could face issues in producing and protecting new inventions (Breitzman and Thomas, 2002).

Breitzman and Thomas (2002) suggest valuing a company based on the quality of their patents as in doing so, the difference between the book value of the target and their stock market valuation may be minimised. This valuation can also provide significant insights into the value of the target's intangible assets, as well as the allocation of IP between depreciable and non-depreciable assets (Breitzman and Thomas, 2002; Silverman, 2004). This approach can also assist in establishing the purchase price of the target.

Silverman (2004) suggests several investigations that should be completed as part of IP due diligence. The acquirer should confirm that the target owns all rights in the property, this involves examining the chain of title and checking employment agreements with respect to copyrights (Silverman, 2004). The due diligence team must review all property files dealing with patents and trademarks, trade secrets, copyrights, license agreements, confidentiality agreements, joint venture agreements, and confirmation of payment of maintenance fees and taxes where applicable. When analysing the property files, the investigators should check for defects in property or issues of ownerships whilst also searching for factors that contribute towards the strength or weakness of the property (Silverman, 2004). The acquirer must also investigate if there have been any charges of infringement made by either the target or by third parties against the target and the related risks to the acquirer (Silverman, 2004). The due diligence team should also consult any exhibits listing the IP and ownership with publicly available records to check that the sources provide identical information (Silverman, 2004).

4.4.12. Technology

Technology due diligence focusses on information technology (IT) issues and the technological capabilities of the target. The focus of the investigations are on the performance, ownerships and adequacy of the current systems (Breitzman and Thomas, 2002; Savovic and Pokrajcic, 2013). Technology due diligence seeks to assess the value and sustainability of product technology and well as the feasibility of integrating the various IT and technical systems and the associated costs (Savovic and Pokrajcic, 2013).

Harvey and Lusch (1998) identify several areas to be addressed during technology due diligence. In this regard, the due diligence team should develop documentation for the technical architecture of the target. Further, the due diligence team should undertake an assessment of the target’s standardised and customised software. The due diligence team must identify and assess all the target’s agreements in relation to their hardware, software and maintenance. The should establish whether technical support is required to maintain the technical aspects of the management information system. There should be a plan developed to set up an interface of the merging parties’ communication systems (Harvey and Lusch, 1998).

Bruner (2004) suggests four tasks which should be completed to assess the IT capabilities of the target. Firstly, the adequacy of the management information system should be established. Secondly, there should be an evaluation of the effectiveness of the target’s IT department. Thirdly, the due diligence team should assess the compatibility of the acquirer’s IT system with that of the target. Finally, the due diligence team must create a plan for the post-merger integration of the target’s IT system with the acquirer’s IT system (Bruner, 2004).

4.4.13. Research & design

R&D due diligence is usually specific to certain types of deals, or for target’s in certain industries. The capabilities of the R&D department of the target are analysed in these investigations. Potential synergies should also be identified (Patrick Lemieux and Banks, 2007).

4.5. Due diligence process factors

There are many ways in which to approach the due diligence process. The aim of identifying the concepts and factors surrounding the due diligence process is to gain an understanding of the different methods currently in use and to assist in creating a framework which considers a comprehensive approach to due diligence.

In identifying the various steps and planning factors across the diverse data set of papers, it is possible to explore where gaps in the literature surrounding the due diligence process exist. Steps are identified as a task or action to complete to aid in the completion of the due diligence process. Planning factors refer to any actions or considerations which should be taken to design and formulate a strategy by which to approach the due diligence process.

This part of the systematic review also sought to uncover the various tools which are used during the process of due diligence. In the context of this study, tools include any instrument or mechanism by which to complete a specific aspect of due diligence. Whilst some tools are common to the due diligence process, there are some which are not commonly used and the purpose of identifying the tools in the due diligence process will enable the creation of a comprehensive framework.

Concepts or factors surrounding costs associated with the due diligence process were also extracted to gain an understanding of the budgetary requirements for due diligence.

Success and risk factors relating to the due diligence process were extracted from the dataset of papers. Success factors are any factors which can have an overall positive impact on the due diligence process, as well as the deal at large whilst risk factors are any factors which pose a threat to the due diligence process as well as the deal. One of the underlying motivations in this research is to ensure the maximum probability of success for a transaction. The due diligence process is responsible for uncovering any risks that may occur in the deal and to assist in mitigating those risks. It is therefore necessary to analyse all success and risk factors uncovered from the literature

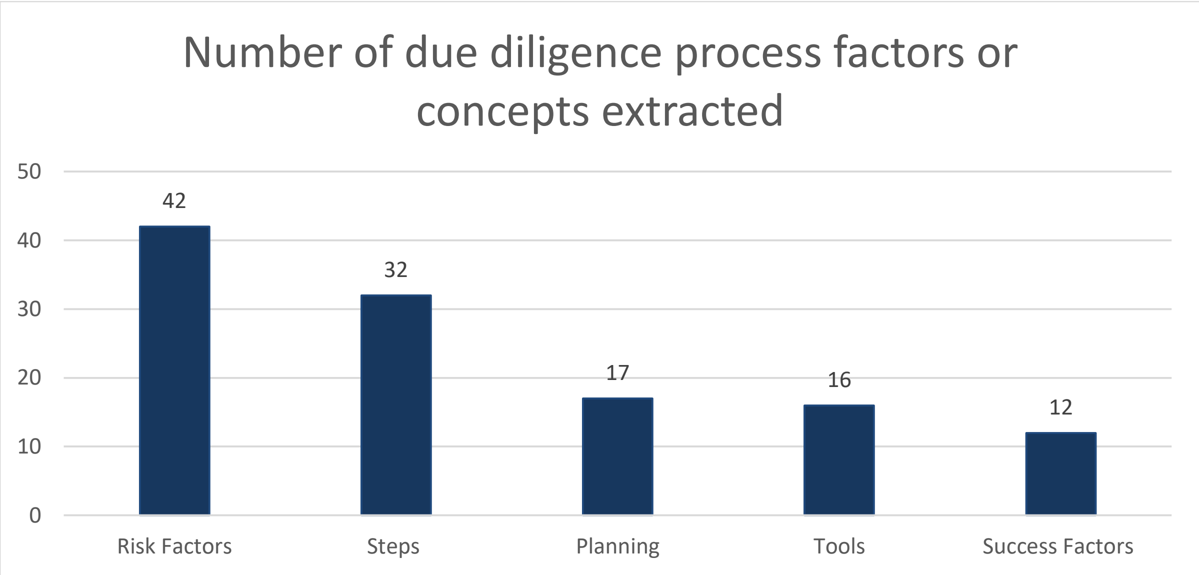


Figure 4.8 - The number of factors/concepts extracted from the dataset for the due diligence process

Figure 4.8 provides an indication of the number of factors and concepts extracted from the dataset for the field of due diligence process factors. Evidently, the highest number of concepts or factors extracted was risk factors. The concepts and factors extracted will be discussed in detail from Section 4.5.1 to Section 4.5.6.

4.5.1. Risk factors

An objective of due diligence is to uncover all risks associated with the target in a potential deal. It is therefore necessary to include risk factors as one of the process factors. As noted above, the systematic review found 42 risk factors. These factors cover a wide range of due diligence activities. Certain risk factors are discussed in detail whilst other risk factors are summarised in Table 4.5.

A noteworthy study by Lovallo *et al.* (2008) identifies, as a risk factor, different types of biases that can occur during the due diligence process. These biases can lead to issues further down the line in the deal if they are not recognised and overcome early in the due diligence process. Table 4.5 provides a breakdown of the seven biases.

Table 4.5 - Biases which occur during the due diligence process (Lovallo et al., 2007)

Phase	Bias	Description
Preliminary due diligence	Confirmation bias	Information is sought out to validate an initial assumption. The letter of intent which contains a price range decides on whether a deal moves ahead. Confirmation bias can cause a lot of damage in the early stage of due diligence, instead of synergy estimates guiding the price range, the letter of intent guides the synergy estimates which initiates the due diligence process with biased estimates.
	Overconfidence	This bias is incredibly destructive when identifying revenue and cost synergies. Revenue synergies have a lower likelihood of being realised than cost synergies thus reliance on revenue synergies can signal an issue.
	Underestimation of cultural differences	This is a well-documented issue in M&A. Unanticipated cultural clashes can arise in any situation. Employees often overestimate the performance of the combined organisation and will ascribe any poor performance to members from the other firm.
	The planning fallacy	This bias relates to the tendency to underestimate the amount of time, money and other resources required to complete the M&A transaction.
	Conflict of interest	The advisors working on a deal may not always provide objective input and may be driven by the aim of making a personal profit off the deal. It is important to seek additional advice from objective experts
Transactional due diligence	Anchoring	There is a tendency to underreact to surprising news. This bias causes people to anchor onto an initial number and then adjust away from it insufficiently even if that initial number is meaningless. Initial valuations can act as anchors in the deal and can lead acquirers to not adjust sufficiently from a price despite new evidence which may emerge.
	Sunk cost fallacy	People are unwilling to surrender when they have spent a lot of time, money, effort and reputation into making a deal happen, even when the costs are unrecoverable. This bias causes acquirers to continue pursuing a deal even when all evidence indicates that the deal should not be pursued.

Lovallo *et al.* (2008) also identifies eight red flags which companies should be aware of during the M&A process. Although these red flags do not relate to the due diligence process specifically, they are important to consider as some can occur at any time during the process. (1) The majority of the company doesn't believe in the deal, only the CEO and certain top executives have faith I the deal. (2) The identification and analysis of synergies focuses solely on revenue enhancement, without an investment plan, rather than cost savings. (3) Cultural due diligence is carried out hastily. (4) The acquirer has limited experience with M&A transactions and has not sought the help of external advisors. (5) The walk-away price changes during the bidding phase. (6) There are multiple bidders for the target. (7) members of the organisations indicate the high amount of resources (time and money) or reputation has sunk into the deal. (8) The deal is considered one which should be closed at all costs. The authors note that the presence of one flag does not mean that the deal is set to fail, however the presence of multiple of these red flags indicate quite strongly that the deal is likely to fail (Lovallo *et al.*, 2008).

Ainsworth (2007) identifies four barriers as risk factors to conducting an effective due diligence. These barriers are: verification, timeliness, multiplicity of sources and costs. Verification deals with the issue of determining whether the information obtained from a secondary source is reliable or not.

Timeliness refers to the fact that data can and does change quite quickly and therefore requires that regular rechecking be carried out to ensure that compliance is maintained. It can be a major risk if data is not updated and a deal moves forward on incorrect information. A multiplicity of sources is required in due diligence to ensure comprehensive investigations are complete; however, certain sources are quite costly and may be out of the budget scope for the deal team resulting in imperfect information being obtained during the due diligence investigations. Lastly, cost can be a significant risk factor as the costs escalate the more detailed the due diligence becomes (Ainsworth, 2007).

The remaining risk factors identified are listed in Table 4.6. Certain risk factors which have been deemed to be similar have been listed together.

Table 4.6 - Risk factors identified during the systematic literature review

Risk Factor	Description	References
Rushed due diligence	Due diligence is often hurried as excitement for the deal rises. The due diligence process is then carried out inadequately which may lead to overestimations of revenue enhancements and cost savings and underestimations of the resource requirements and headaches involved in integrating businesses.	(Marks and Mirvis, 2015)
Ignoring organisational, HR and cultural issues	Ignoring organisational culture differences, HR or cultural issues may have high long-term hidden costs. These people or cultural issues either never surface during the due diligence or the acquirer underestimates their importance and fails to recognise them as warning signs of business problems that could sap value from the deal and even threaten the success of the transaction.	(Horwitz *et al.*, 2002) (Latukha and Panibratov, 2013) (Lovallo *et al.*, 2008)
Limiting the due diligence process	Limiting the due diligence process to an evaluation of financial statement, management, and physical assets leaves the acquisition process, and more importantly the acquirer, with serious vulnerabilities. It is essential that the due diligence process goes beyond the obvious analyses and include a detailed self-analysis and thorough review of the markets and competitive environment of prospective acquisitions.	(Lebedow, 1999) (Harvey and Lusch, 1995)
Information asymmetry	A significant risk is a lack of information or withheld access to information due to confidentiality or unwillingness of the target to voluntarily share information. Often the due diligence process must be kept quiet with only a limited number of people involved therefore limiting the scope and depth of due diligence.	(Patrick Lemieux and Banks, 2007)
Unsuitable target	A common cause of M&A deal failure is due to the incorrect selection of a target. Due diligence investigations can mitigate this risk if the investigation into a potential target is thorough.	(Song *et al.*, 2009)
Entrenched business processes	Companies that acquire targets from firms in maturing industries must "untangle" the target's business processes from its parent company. In most cases, the pieces being sold have entrenched processes and cultures that are difficult to integrate into the buyer's organisation.	(Perry and Herd, 2004)
Overestimation of synergies	The promise of synergies is often one of the leading motivations for embarking on an M&A transaction. This emphasis on synergies does mean that if synergies are overestimated, there is a significant risk that the deal will not produce the anticipated results.	(Garzella and Fiorentino, 2013)

Shortened timescales	Many deals have short timeframes therefore putting pressure on the due diligence team to conduct their investigations as quickly as possible. There is a risk that the investigations will not be as comprehensive due to the tight schedule resulting in certain aspects being overlooked which can lead to problems further in the deal-making process.	(GrantThornton, 2004)
Too much due diligence	It is possible for a deal to become paralyzed by the amount of due diligence being conducted on the target. Although it is true that the more detailed the due diligence, the greater the degree of certainty for the deal. However, there is a point where the cost of obtaining information outweighs the benefit.	(GrantThornton, 2004)
Overlap of the different lines of enquiry	At some stage in the due diligence process, the various lines of enquiry will overlap and impact the findings of one another. The people leading the different enquiries should communicate regularly to establish a basis of understanding of where the due diligence process is at.	(GrantThornton, 2004)

4.5.2. Success factors

There were 12 success factors which were identified in the review. The success factors which were identified were analysed and condensed into the factors which are listed in Table 4.7. Most of the studies reviewed focussed on the risk factors (which is evident as there were 42 of these factors identified). This has to do with the fact that due diligence is used to uncover risk. A limited number of studies focus on success factors.

Table 4.7 - Success factors identified from the review

Success Factor	Description	References
Decide on critical success factors	Critical success factors (CSFs) ground the vision and storyline into tangible objectives and measurable milestones. They give shape to the combination of functions, products, and services and drive integration decisions toward creation of value. The CEO and top team must define and ensure that these CSFs are kept at the top of priority lists of managers if the combination is to succeed. They form the criteria against which combination decisions and execution are evaluated.	(Marks and Mirvis, 2001)
Targeted de-biased approach	The approach requires executives first to identify the cognitive mechanisms at play during various decision-making steps and then to use a set of techniques to reduce bias at specific decision points thereby leading to sounder judgements.	(Lovallo *et al.*, 2008)
Realisation of the 'people situation' in the target company	To increase the chances of a long-term, financially successful M&A, comprehensive due diligence must incorporate the realisation of the 'people situation' in the target company. A thorough due diligence that pays great attention to the target's workforce is aimed at discovering both the company's people problems and people strengths.	(Latukha and Panibratov, 2013)
Due diligence activities carried out by successful companies	• A clear, agreed vision shared by both parties • A detailed, prioritized architecture for change • An architecture for the new company based on the strengths of the two parties focused on maximizing value • A new leadership team chosen and communicated quickly • An explicit plan to address cultural issues	(McGrady, 2005)

Organisational culture and intangible assets	Research in the field of M&A highlight organisational culture and intangible assets as key drivers of post M&A performance. These aspects, if managed well, can lead to the success of a deal.	(Denison and Ko, 2016) (Savovic and Pokrajcic, 2013)

4.5.3. Tools

One of the research objectives is to identify the tools required to conduct the due diligence process. During the review process, 16 tools were identified from the studies. The majority of tools identified are specific to an area of due diligence. The researcher has elected to highlight three of the most helpful tools which were uncovered from the dataset of papers, namely: (1) the synergy measurement model, (2) the priority matrix and risk assessment tool, (3) the patent citation analysis tool, and (4) cultural and HR due diligence tools.

The reason for why these tools have been included and analysed is because these tools have been identified as having the most impact on the objectives of this research project. The other tools identified from the dataset of papers covers specific areas of due diligence. These tools suggest very specific approaches to their respective areas of due diligence hence they do not fit into the generalist approach to this research study. The cultural and HR due diligence tools have been included in this analysis due to their generalist approach to these areas of due diligence.

Synergy measurement model

Measuring synergies is an important aspect of the due diligence process. Garzella and Fiorentino (2013) created a synergy measurement model. The model analyses four factors, namely: synergy form, synergy size, synergy timing, and synergy likelihood. The model is illustrated in Figure 4.9. As can be seen, the measurement process begins with the analysis of synergy form, establishing what the nature of the synergy is (i.e. financial, tax, operating, etc.). Next, management should establish the financial effect of the synergies, for example, should the synergy produce higher revenues or lower costs. The final step in this stage should explain where the synergistic flow may be allocated. Following from this, the synergy size, timing and likelihood factors should be calculated. This will allow the synergistic flows and discount rate to be determined and from these two values, the synergy value may be deduced.

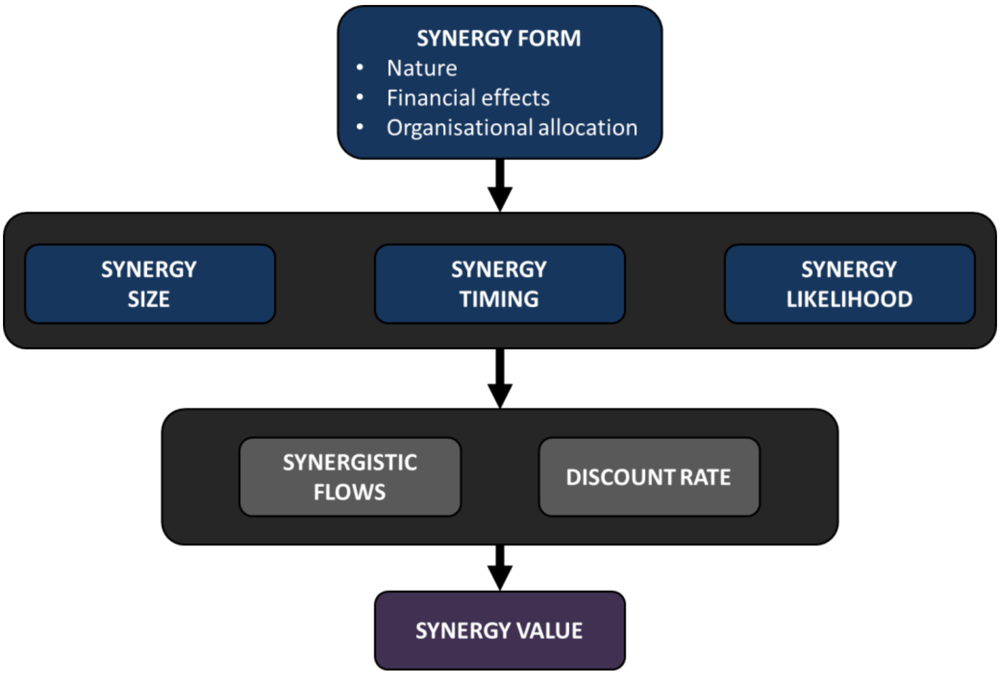


Figure 4.9 - Synergy Measurement Model (Garzella and Fiorentino, 2014)

Priority matrix and risk assessment tool

Another tool uncovered during the review is the priority matrix which prioritises the various initiatives of the M&A based on value potential and the complexity of implementation (Perry and Herd, 2004). There are various initiatives which will drive the success of the deal; however, due to limited resources these initiatives cannot all be managed in the same manner. The priority matrix aims to rectify this issue by assigning each initiative for the deal to a certain priority category. The assignment to a priority category is based on the potential value that an initiative may deliver as well as the complexity of implementing that initiative. Figure 4.10 provides an illustration of a priority matrix for a high-tech company that needs to prioritize their various initiatives for an imminent M&A deal. The initiatives are categorised as either cost synergies or revenue synergies. Initiatives considered to deliver a high value with a low complexity of implementation should be focussed on aggressively, whilst initiatives which are high value but are more complex to implement should be carefully planes for so that the resources may be focussed, and any risks can be effectively managed.

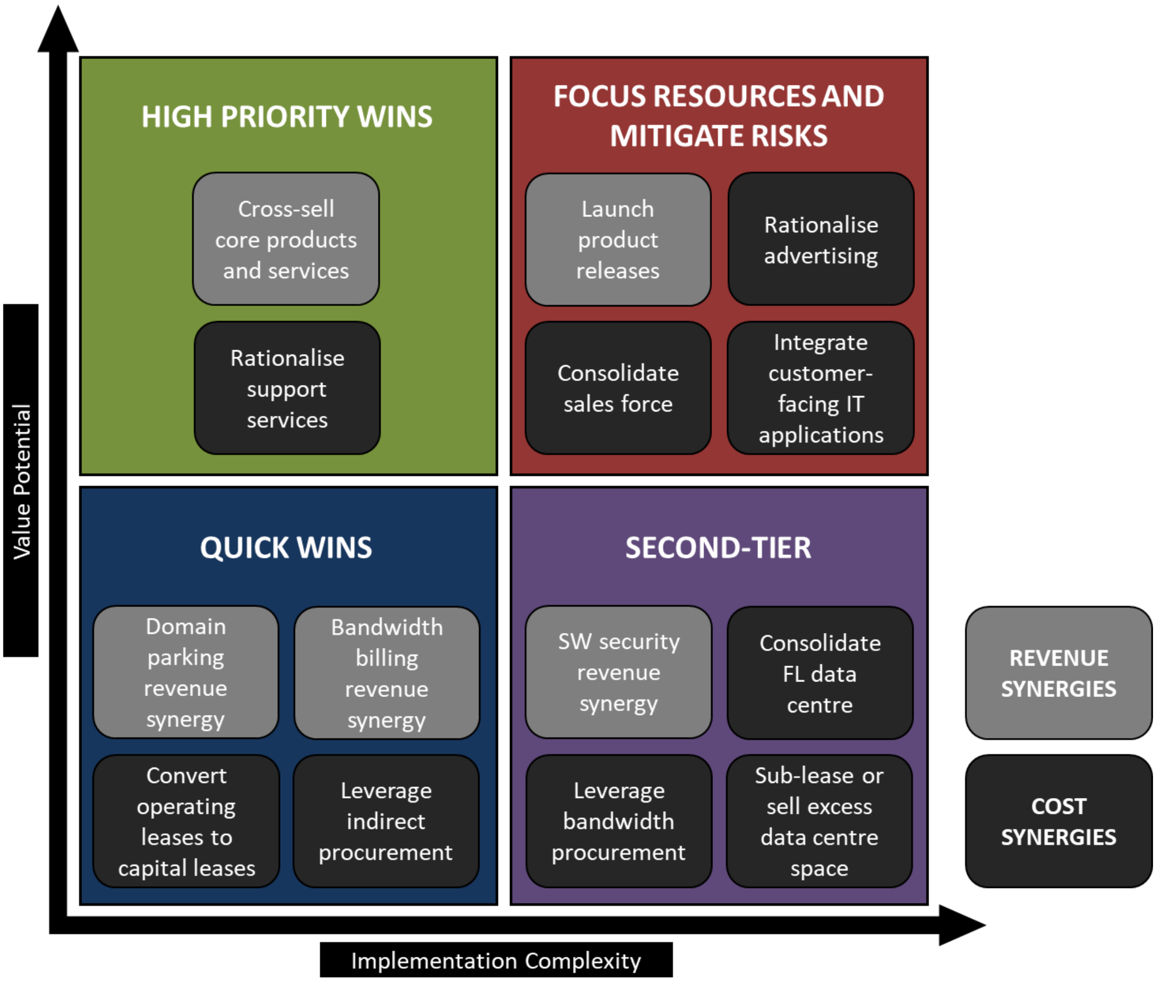


Figure 4.10 - Example of a priority matric for a high-tech company embarking on an M&A, adapted from (Perry and Herd, 2004)

The priority matrix should be used in conjunction with risk assessment tool which considers the risk associated with high priority and complex initiatives. The risks identified for each initiative will need to be mitigated and requires a plan which is based on the possible impact of al scenarios related to the risks. The probability of a risk occurring and its impact if it does occur should be determined for all risks. The scale used to assess probability and impact is illustrated in Figure 4.11. A risk mitigation plan should be developed for each risk to lower the potential of that risk occurring. The deal team should focus on reducing either the frequency or impact of the risk occurring depending on which poses the greatest threat. It should be noted that this tool should only be used on complex initiatives with a high business value.

Figure 4.11 - Risk assessment tool for high priority initiatives (Perry and Herd, 2004)

Patent citation analysis

An important aspect of due diligence, depending on the type of transaction being carried out, is analysing the IP of the target. Breitzman and Thomas (Breitzman and Thomas, 2002) suggests a useful tool, patent citation analysis, which can be used for assessing the patents of a target and ensuring that the target's technology infrastructure is adequate and meets the requirements of the acquirer. Patent citation analysis looks at the citation links between different patents as well as between patents and scientific literature. The core principle behind patent citation analysis is that patents which are cited by numerous later patents usually contain important principles and ideas on which the later inventions are built. A firm which contains highly cited patents are therefore more likely to have technology which is fundamental to that industry. Citation links between patents can also indicate the rate of innovation of a company. Companies which cite more recent patents are likely to be innovating at a faster rate than those who cite older patents. Lastly, by analysing the link between patents and scientific papers indicate how the company may be contributing to research in that field by building on and contributing to the knowledge of that field (Breitzman and Thomas, 2002).

Cultural and HR due diligence tools

Harding and Rouse (Harding and Rouse, 2007) suggests tools for carrying out an effective cultural and HR due diligence. When assessing a target's culture as well as the strengths and weaknesses of its people, the tools which an acquirer can use include organisation charts, internal satisfaction surveys, interviews with important executives and role plays to determine patterns of response to various business scenarios.

4.5.4. Planning

Planning the due diligence process is a crucial task in the due diligence procedure. There are constraints that are placed on the due diligence process, such as, time, costs and resources. It is necessary therefore to plan the due diligence process as extensively as possible to ensure that the due diligence process may be carried out efficiently. The review uncovered 17 planning factors. A synthesis of the planning factors is presented in this section.

There are common challenges which face most M&A programs. Marks and Mirvis (Marks and Mirvis, 2015) identify four challenges. The first is strategic challenges; overcoming this challenge requires clarity in highlighting the sources of synergy in a combination and deciding on critical success factors which will guide the M&A process. The second is organisational and cultural challenges, which can be prepared for by anticipating potential synergies and examining them under different operational scenarios and understanding the structures and cultures of the two merging organisations whilst outlining the desired relationship between the two organisations. Psychological challenges, the third challenge, can be mitigated by educating and raising awareness amongst the two organisations' people about the stresses and strains which will be placed on them during the merger or acquisition. The final challenge is that of transition management. Overcoming this challenge involves planning the many tasks needed to carry out the merger or acquisition as well as motivating the workforce to support the deal and assist in ensuring a well-functioning organisation. Further, planning on how to manage limited resources well (Marks and Mirvis, 2015).

In planning the due diligence process, an article by (GrantThornton, 2004) states that the most important aspect when planning a due diligence investigation is to ensure that the due diligence team understands what the rationale and key business objectives are behind embarking on the M&A. Understanding the rationale and motives behind the merger assists the team in focussing the due diligence investigation and limited resources on the most relevant and important information and deciding on what should be reviewed and when.

Cullinan Le Roux and Weddigen (2004) propose four questions to assist with defining the business rationale and key objectives, specifically: (1) What is being purchased? (2) What is the target's stand-alone value? (3) What synergies are to be expected and are there any illegal or questionable activities at the target? (4) What is the walk-away price? These questions help to direct the planning process by providing focus on the areas which are most pertinent to this deal.

An article by Morrison, Kinley and Ficery (Morrison, Kinley and Ficery, 2008) place emphasis on getting experts involved early on in the due diligence process. Depending on the nature of the deal, it is important that experts within the industry of both the target and acquirer (if they are not in the same industry already) are brought on in the planning stage of the due diligence process as they can provide critical information on where the investigations should focus. Due to their extensive knowledge of their specific industry, the experts can anticipate any industry-specific risks which is useful in the planning stage as a plan can be developed for mitigating these risks.

4.5.5. Costs

One of the research objectives is to uncover the costs associated with the due diligence process. The purpose of doing so is to find areas in which costs may be reduced. As such, the review sought to uncover and extract any costs that are associated with the due diligence process. There is a clearly a gap in the literature when it comes to quantifying the costs of a due diligence process. One of the reasons for the lack of literature surrounding the costs associated with the due diligence process is that it can widely vary depending on the type of transaction, as well as the size of the deal. Nonetheless, the review uncovered a few costs which will be discussed below.

A cost which is explicitly quantified is the review of the EMS during environmental due diligence. MacLean (2000) suggests that the cost of conducting a thorough review of a target's EMS is anywhere in the region of $1500 and $3000 depending on the size of the facility under review.

Endert and Mammen (2015) suggest a few cost considerations when conducting a due diligence investigation. They argue that as part of the due diligence process, costs should be estimated for the integration stage. This includes considering the cost of setting up a tax management system or the costs of adapting the target's existing risk management system. The article is written from the perspective of conducting tax due diligence however the concept applies to all areas of due diligence and the different integration costs should be considered.

It is clear from the review that more information is required regarding the costs associated with the due diligence stage. Thus, a gap has been identified which will be addressed during the validation stage of this thesis in Chapter 6.

4.5.6. Steps

There were 32 steps uncovered during the review of the literature dataset. Identifying the steps to be taken in a due diligence investigation is important as this informs the foundation of the conceptual framework. The steps assist in creating a framework which encapsulates the entire due diligence process whilst making sure crucial procedures are carried out where necessary.

The 32 steps were analysed in depth. Some steps form part of a method proposed by the study from which they were extracted. There are also some steps which are specific to a certain area of due diligence. This section examines three methods with their relevant steps which were identified from the review: (1) three-step model, (2) due diligence audits, and (3) the ECIPP method.

4.5.6.1. Three-step model

A three-step model of due diligence is proposed by four of the studies which were reviewed. Although the three steps are given different names in each of the studies, they effectively describe the same steps.

In this regard, Harvey and Lusch (1998) propose the following three steps: due diligence prior to M&A, due diligence during M&A, and due diligence after M&A. Marks and Mirvis (Marks and Mirvis, 2015) suggest the following three steps: the pre-combination phase, combination phase and post-combination phase. Tsao (2009) identifies the three steps as: searching for potential candidates, evaluating and ranking the candidates, and assisting the after-transaction integration.

The second step identified by Tsao does not completely align with the other three step models however much of what he covers in the second step is covered in the first step of the other models.

Lastly, the steps proposed by Savovic and Pokrajcic (2013) are: preliminary due diligence, due diligence review and transactional due diligence. An explanation of these three-step models are provided in Table 4.8. The steps are named according to the model proposed by Savovic and Pokrajcic (2013) however the explanation is an amalgamation of the four models.

Table 4.8 - Three-step model for the due diligence process

Steps	Explanation	References
Preliminary Due Diligence	Prior to the identification of a target, the due diligence team should begin a formal evaluation of potential candidates. Public information of the potential targets should be gathered to allow managers and the deal team to become more informed on a potential target as well as assisting in the selection of the candidate.	(Harvey and Lusch, 1998) (Marks and Mirvis, 2015) (Savovic and Pokrajcic, 2013) (Tsao, 2009)
Due Diligence Review	This is the 'traditional' due diligence review step. The objective of this phase is to collect and evaluate information on the target. This information is used in facilitating decisions, such as, whether to proceed with the deal or negotiating the terms of the deal.	(Harvey and Lusch, 1998) (Marks and Mirvis, 2015) (Savovic and Pokrajcic, 2013) (Tsao, 2009)
Transactional Due Diligence	The acquirer should continue collecting information on the target after the deal has been finalised. There are numerous reasons for continuing with due diligence. Firstly, the due diligence team has the most information about the target and is therefore able to assist the integration team in their efforts to ensure a smooth transition to the new organisation and	(Harvey and Lusch, 1998) (Lovallo *et al.*, 2008)

	minimise the risks of integration. Secondly, transactional due diligence allows the acquirer to perform a final check of the target before assuming the risk of ownership. Lastly, following the acceptance of an initial bid, additional due diligence can be carried out since the acquirer now has greater access to the target's information.	(Marks and Mirvis, 2015) (Savovic and Pokrajcic, 2013) (Tsao, 2009)

4.5.6.2. Due diligence audits

Harvey & Lusch (1995) suggest a method based on a due diligence audit. In this model, seven distinct audits are proposed as well as the procedure in which to complete them. The procedure is expanded on in Table 4.9. Each step in the procedure has to confirm the viability of the deal in order for the next audit to be conducted. The sequence which should be followed is as follows:(1) financial audit, (2) legal and environmental audit, (3) macro-environmental audit, (4) marketing audit (5) management audit, (6) production audit, and lastly, (7) information systems audit.

Table 4.9 - Procedure for the various due diligence audits (Harvey and Lusch, 1995)

<table>
<tr><th colspan="2">Financial Audit</th></tr>
<tr><td colspan="2">1. Develop an understanding of the target's business and accounting system and determine factors which may affect the audit negatively.
2. Plan and document an audit strategy which is efficient and effective
3. Evaluate the internal accounting controls
4. Perform compliance tests of the controls
5. Perform substantive audit tests
6. Report on the financial statements</td></tr>
<tr><th>Legal Audit</th><th>Environmental Audit</th></tr>
<tr><td>Investigate the following:
1. Basic organisational matters
2. Ownership of securities
3. Banks and borrowing
4. Financial history
5. Litigation
6. General regulatory data
7. Real property
8. Personal property
9. Intellectual property rights
10. Contractual management issues
11. Labour contracts and history
12. Insurance</td><td>Objective: Ascertain the degree or status of an organisations compliance with all statutory and regulatory authorities to which it is beholden.
1. Materials entering the facility
2. Materials, personnel, activities and conditions occurring on-site
3. Effects on site attributes such as zoning considerations
4. Emissions</td></tr>
<tr><th colspan="2">Macro-Environmental Audit</th></tr>
<tr><td colspan="2">Steps involved in implementing an environmental scanning system:
1. Conceptualisation of the scanning network (why is the environment being examined and what level of detail is required to predict changed in the environment)
2. Development of scanning guidelines (what significant variables or events will influence the strategic orientation of the company)
3. Determination of sources (where can information be acquired to assist in predicting shifts in the marketplace)
4. Establishment of a synthesis or analysis approach (who will collect the data, how is information be spread to the acquisition team and how will this information be acted upon)</td></tr>
</table>

Marketing Audit	Management Audit
The following areas should be investigated: 1. Marketing environment review 2. Marketing system review 3. Marketing functions review	Key dimensions of a management audit: 1. Organisation structure 2. Personnel assessment 3. Compensation or benefit program 4. Management infrastructure
Production Audit	**Information Systems Audit**
Investigate the following: 1. Physical plant and equipment 2. Manufacturing systems assessment 3. Manufacturing personnel	An audit of the information systems should encompass three integrated issues: 1. Technology issues 2. Management issues (human resources information system) 3. Merger/transition issues

4.5.6.3. ECIPP Method

Hindle (1994) proposes a method for conducting dynamic due diligence to evaluate M&A. This method is the ECIPP method: Establishing mandates; Creating projections; Identifying issues; Prioritizing procedure; Performing them. It is important to note that the ECIPP method is focussed in the financial area of due diligence. Table 4.10 provides a breakdown of the different phases in the ECIPP method.

Table 4.10 - ECIPP Method (Hindle, 1994)

Phase	Description
Phase 1	Searching for potential candidates, identifying the motivation and purposes, and establishing the transaction strategy.
Phase 2	Create the first round of financial projections.
Phase 3	Identify the due diligence issues using sensitivity analysis.
Phase 4	Prioritize the due diligence procedures and split into two categories; in-house and ex-house. Incorporate the procedures into a due diligence matrix.
Phase 5	Perform the due diligence procedures and amend the projections where necessary.

4.6. Due diligence principles and concepts

Owing to the diverse nature of due diligence, there are various principles and key concepts which were considered when reviewing the dataset of papers. The concepts and principles were extracted according to three categories, namely: best practices, considerations and strategies. Figure 4.12 indicates the number of concepts and principles extracted for each of the categories.

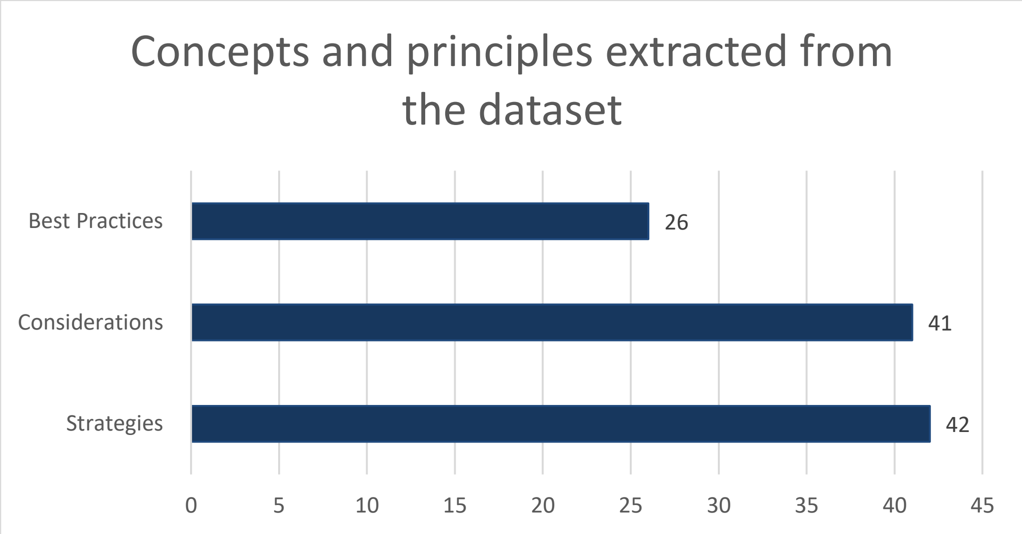


Figure 4.12 - Concepts and principles extracted from the dataset

4.6.1. Best Practices

Best practices for M&A due diligence were identified as a crucial aspect to uncover during the review. Best practices identify the important factors to consider and include in a due diligence investigation. It helps to ensure that the investigation carried out is of the highest possible standard and incorporates practices from leading firms and corporations. The review uncovered 26 best practices from the dataset. This section presents a synthesis of the best practices identified.

A best practice which should be implemented early on in the due diligence process is to have a vision for the combined organisation (Marks and Mirvis, 2015). An organisation should have a clear rationale for embarking on a M&A transaction. The rationale should have a guiding vision explaining what the organisation hopes to accomplish from the transaction as well as a defining mission of what needs to be done. This should be shared with each team for each stage of the transaction; from the due diligence team, to the integration team. Understanding the rationale behind the transaction helps to attain buy-in from all parties involved in the transaction. It is especially crucial to the personnel conducting the due diligence investigations as it helps in focussing their investigations.

A recurring best practice identified during the review is that the due diligence investigations should focus on what matters most and be clear about the search criteria (Perry and Herd, 2004; Morrison, Kinley and Ficery, 2008). This begins with identifying those initiatives which drive the overall value in the deal. These initiatives will differ between every deal; however, common initiatives such as rationalising the supply chain network, IT applications, or realigning the sales force may be identified (Perry and Herd, 2004). Resources should be directed to investigating these initiatives during due diligence as these initiatives are perceived to be crucial to the deal. However, the investigations should not focus solely on these initiatives as part of reasoning behind due diligence is to uncover all risks associated with the deal, therefore, it is not advisable to have such a narrow focus when conducting due diligence. The due diligence team should be clear about the criteria they are looking for in their investigations and clearly define any metrics that these criteria will be judged by (Morrison, Kinley and Ficery, 2008).

Adolph, Gillies and Krings (2006) suggest eight best practices to consider when organising a due diligence team. The importance of having a dedicated due diligence team is also highlighted by

Morrison, Kinley and Ficery (Morrison, Kinley and Ficery, 2008). Putting together an effective due diligence team is a critical step in the investigations. A well-conceived team is responsible for ensuring the proper assessment of the deal and the target as well as putting forth a recommendation for the continuation of the deal. Further, the due diligence team will continue to support other important steps in the merger process such as negotiations and integration. The eight best practices are presented in Table 4.11. It should be noted that whilst most of the best practices apply in all merger cases, there may be some differences that are dependent on the type of merger.

Table 4.11 - Eight best practices for organising a due diligence team (Adolph, Gillies and Krings, 2006)

Best Practice	Description
Choose the appropriate people who have the time to lead the project and serve as team members.	The due diligence process is usually very time sensitive and confidential thus replacing leaders or members of the team later in the process is not feasible. Specific team resources should be dedicated to the investigations for the duration of the due diligence process.
Select members from different functional areas of the organisation.	Functional experts from different departments within the organisation should be enlisted (i.e. human resources, IT, finance, operations etc.). The valuable expertise these team members bring assists the team in attaining buy-in from line management which is potentially difficult to obtain if a key department is left out of the integration process.
Find a secure location to locate the due diligence team.	The due diligence team deals with sensitive and confidential information during the investigations; therefore, a secure location should be found within the company headquarters or a position located close to the target to locate the due diligence team.
Communicate the rationale for the merger to the due diligence team.	To direct the investigations, it is crucial for the due diligence team to understand the rationale for embarking on the merger. The due diligence team should have enough detail about the merger to be able to identify critical issues which may relate to the rationale for the merger.
Train the team to identify and focus on specific issues.	Resources are often limited during a due diligence investigation therefore it is important to instruct the team to identify and focus on specific issues which include the analysis and data required. A checklist aids in achieving this by keeping the team on track and by avoiding an undirected data search.
Develop the rules of engagement between the due diligence team and target.	This best practice assists in avoiding cultural clashes or conflicts whilst ensuring that the team properly reflects the acquirer's intentions.
Ensure analytical tools and techniques are available to the team to discover and assess potential synergies and integration challenges.	All resources which are required for the due diligence team to conduct their investigations within the specified time period and according to the budget allocated should be considered and provided to the due diligence team.
Facilitate a good flow of information between the due diligence team and integration team.	To action this best practice, selected members from the due diligence team should be included in the integration planning team. This ensures that crucial issues and aspects identified during the due diligence investigations can be incorporated into the integration planning. Further, the presence of due diligence team members ensures that the rationale and data analysis are properly leveraged for integration planning.

Bringing on experts to assist in certain aspects of due diligence is an important best practice (GrantThornton, 2004; Perry and Herd, 2004). This is also one of the eight best practices for organising a due diligence team (Adolph, Gillies and Krings, 2006). There are often complex areas of due diligence which requires the analysis of an expert. However, these experts may not be readily available within the acquirer organisation; therefore, it becomes important to enlist the help of external experts within that specific field. These experts often uncover issues or risks associated with the target which would have otherwise gone unnoticed. It is important to note that getting in external experts can be a costly affair. It is crucial therefore, to identify those areas of the due diligence investigations where experts can provide the most value.

Perry and Herd (Perry and Herd, 2004) suggest that an acquirer should trust the information that is being supplied by the target but at the same time, also verify that the information is indeed correct. Sellers will often make promises that could make the buyer complacent. It is important to not take these assurances at face-value and carry out a thorough due diligence to ensure that integration can occur as smoothly as possible (Perry and Herd, 2004).

Morrison, Kinley and Ficery (Morrison, Kinley and Ficery, 2008) suggest two further best practices; having replicable due diligence processes and establishing firm guiding principles for managing key functions. The first best practice acknowledges that companies with a successful track record for M&A deals have a replicable due diligence process which is well documented and can be executed relatively easily. Having a standard due diligence process means that more value can be obtained from a deal in a shorter period and that more deals can be pursued due to shorter due diligence investigations and lowered risk (Morrison, Kinley and Ficery, 2008). The second best practice centres on the fact that organisations which have firm guiding principles for how it managed key functional areas (such as IT or supply chain operations) can move their acquired targets on to their operating systems relatively quickly and efficiently. This also makes the estimation of costs more straightforward (Morrison, Kinley and Ficery, 2008).

4.6.2. Strategies and considerations

The review sought to uncover any strategies mentioned in the dataset regarding the due diligence process. Further, considerations regarding the due diligence process were also identified. Due to the similarities that were highlighted when analysing the strategies and considerations identified, these two factors will be discussed simultaneously. Following the analysis of the strategies and considerations, several general areas were identified under which the factors identified fall.

4.6.2.1. Strategies/Considerations for determining the amount and depth of due diligence

A due diligence investigation can continue for an unlimited time as there are always further investigations or analyses that can be carried out on a target. Since an acquirer will not have an unlimited amount of resources to dedicate to the due diligence investigations, it is necessary from the outset to place certain restrictions on the due diligence process. These restrictions cover the amount of due diligence that is deemed necessary, the time allocated for the investigations, the amount of money that the acquirer is willing to spend on the investigations and finally the human resources that an acquirer is willing to allocate to the investigations.

In many deals, time is often a significant constraint as there may only be a short amount of time in which due diligence investigations may be carried out (GrantThornton, 2004). With this constraint, it is often the case that a thorough investigation into the target cannot be carried out, with only the major areas of due diligence being covered, such as financial, legal and tax due diligence (Harvey and Lusch, 1995).

Cost is another significant constraint on the due diligence investigations. It can become very costly to bring in experts from every functional area to conduct analyses and provide an opinion (Hearne and Dean, 1989). Harvey and Lusch (1995) suggest that cost constraints are a function of the size of a deal. In a relatively small deal, dedicating a lot of resources to the due diligence investigations will be quite costly as these resources will have to be diverted from another area of the organisation.

There may be situational factors that can impact the amount of due diligence that is carried out. Situational factors usually encompass the type and nature of the deal being pursued, such as cross-border acquisitions or hostile takeovers (Harvey and Lusch, 1995). These situational factors may necessitate shortened investigations due to the sensitive nature of the deal. Another type of situational factor that can arise are the legal barriers to full transparency. Legal constraints that are imposed may limit the amount of information which the due diligence team has access to in certain aspects of the business (Bradley, 2016).

When determining the amount of due diligence which should be conducted, the due diligence team should consult the compliance or legal team within the target or representing the deal as to the specific investigations which should be carried out. There is the risk that a low amount of due diligence can lead to important details about the target being missed whereas if the amount of due diligence carried out is excessive, this can lead to an overrun in costs and an overload of information for the due diligence team to process (Ainsworth, 2007).

A report by Grant Thornton (2004) suggests the formulation of a due diligence plan to take into account all constraints facing the due diligence process. The report suggests that tailoring the due diligence process at the commencement of investigations will ensure that all important facts and information involving the target can be uncovered within the constraints so that the acquirer can make an informed decision on whether to proceed with the deal or not.

4.6.2.2. Strategies/Considerations relating to synergies

Uncovering and estimating potential synergies is an important aspect of the due diligence investigations. Finding potential synergies can lead to the identification of new sources of value (Morrison, Kinley and Ficery, 2008). Synergies can also be used in testing the commercial attractiveness of a deal (Adolph, Gillies and Krings, 2006). Potential synergies provide useful information on whether to proceed with a deal. There were several strategies and considerations uncovered during the review which deal with synergies.

Garzella and Fiorentino (2013) suggest four factors for estimating potential synergies, namely: (1)the type of synergy, (2) size of the synergy, (3) timing of the synergy, and (4) the likelihood of achieving the synergy. The authors identify three types of synergies which can be identified, namely: (1) operating, (2) tax, and (3) financial. There is an inverse relationship which exists between the size and likelihood of achievement for operating and tax synergies, whereas there is no sizeable difference between the size and likelihood of achievement for financial synergies. The authors emphasize the importance of estimating synergy value as it could impact the continuation of the deal as well as the deal's success.

An important consideration uncovered during the review is that synergy estimates are often not trustworthy. Cullinan, Le Roux and Weddigen (2004) suggest that the due diligence process should carefully assess each potential synergy to not only distinguish between the different types of synergies and estimate their potential value and likelihood of achievement, but also to estimate the time it will take to achieve these synergies as well as the costs that will be incurred in realizing these synergies. In doing this, the due diligence team will be able to determine whether the synergy estimates are indeed realistic and achievable. Gould (1981) takes this one step further by suggesting that once these synergies have been thoroughly analysed, a list should be compiled that prioritises the synergies according to how quickly the various synergies can be realised. This essentially provides a list of possible growth opportunities which can be implemented as soon as a deal is given the go-ahead; therefore, ensuring that maximum value can be extracted from the deal.

The due diligence team should not only consider those synergies that provide a benefit but also potentially negative synergies. Negative synergies can take various forms and can result in decreased revenues or increase costs if not managed effectively (Cullinan, Le Roux and Weddigen, 2004).

4.6.2.3. Strategies/Considerations for evaluating a deal and establishing a price

One of the major outcomes of the due diligence process is establishing a base price for which to start the negotiations This price is based on all the information gathered about the target during the investigations. A key aspect of due diligence is the valuation of the target. This valuation provides a basis on which to set the initial offer for the target. The review unearthed several strategies and considerations for evaluating a target and setting a price.

When it comes to the valuation of the target, there can often be a significant difference between the book value of a company, in this case one which is publicly traded, and their stock market valuation (Breitzman and Thomas, 2002). The reason for this usually comes down to the value of the company's intangible assets, such as patents, trademarks, brand recognition etc. which is not accounted for on their balance sheets. It is therefore incredibly important to include the investigation of intangible assets in the due diligence process as this can significantly affect the purchase price of target. The inclusion of intangible assets allow for the acquisition team to defend the purchase price of the target internally to senior management as well as externally, to lenders or financiers of the deal (Harvey and Lusch, 1995).

Cullinan, Le Roux and Weddigen (2004) suggest determining a walk-away price for the deal. They explain that walk-away price is the highest price that an acquirer is willing to pay during the negotiation phase. This price should not include the full value of the potential synergies identified, rather the deal's stand-alone value should be calculated separately. Synergies are only realised post-acquisition and therefore should not have undue influence during negotiations (Cullinan, Le Roux and Weddigen, 2004). Further, the walk-away price should be set by a decision-making body which is comprised of trusted individuals, such as representatives from the various teams (i.e. due diligence, integration, negotiation, etc.) rather than senior management as they may be swayed by emotions. Senior management are still responsible for approving the walk-away price (Cullinan, Le Roux and Weddigen, 2004)

4.6.2.4. Strategies/Considerations for managing and accounting for intangible assets

Most traditional due diligence processes focus on investigating the tangible assets of a target. The reason for this is that it is much easier to quantify the value of these 'hard' assets as well as calculating any liabilities associated with these tangible assets (Harvey and Lusch, 1995; Knecht and Calenbuhr, 2007; Marks and Mirvis, 2015). It is now known that only focussing on investigations on tangible assets can skew the investigations as well as the valuation of the target. Including intangible, or "soft" assets in the due diligence investigation is imperative in carrying out a thorough due diligence process. Intangible assets pose a problem to the due diligence team as they are difficult to define which means that they cannot be assessed, measured, or managed very easily (McGrady, 2005).

Harvey and Lusch (1995) have conducted considerable research into classifying intangible assets for the due diligence process. They argue that tangible and intangible assets must be analysed according to where they fit in the target's environment; internally or externally. Figure 4.13 provides an illustration of how they identify and group the various tangible and intangible assets according to the internal or external environment of the target company. They further specify that intangible assets can include; IP rights, trade secrets, contracts and licenses, databases, personnel and organisational networks, organisational culture and the 'know-how' of employees and managers (Harvey and Lusch, 1995).

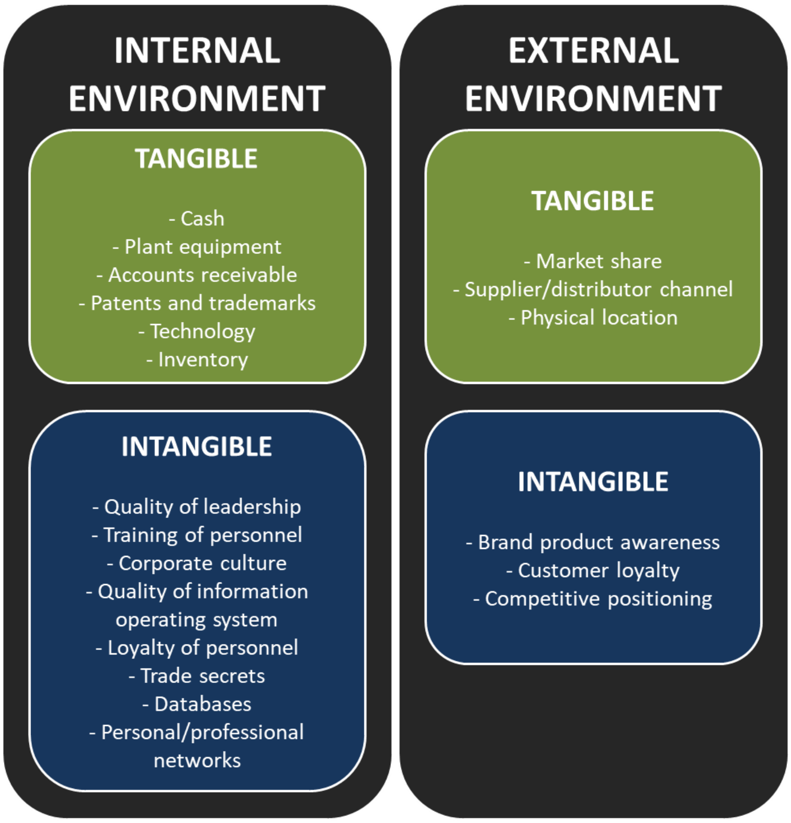


Figure 4.13 - Classifying tangible and intangible assets according to environments (Harvey and Lusch, 1995)

There are six categories, suggested by Harvey and Lusch (1995), in which intangible assets may be classified. These are as follows: (1) Intangible assets having capabilities, such as, products, distribution, or reputations. (2) Intangible assets having “doing” capabilities, such as, knowing how to do something or leadership. (3) Intangible assets dependent on people, such as, company reputation. (4) Intangible assets independent to people, such as, databases. (5) Intangible assets protected by IP laws, such as, patents and trademarks. (6) Intangible assets not protected by IP law, such as, organisational networks. The intangible assets of a company provide a good indication of the capabilities that a target may have. It can lend a competitive advantage to the acquirer from the skills and experience of the human resources within the company. Further, aspects such as reputation, product loyalty and brand loyalty can contribute significantly towards predicting future sales for the target (Hall, 1993).

In addition to examining the intangible assets, Horwitz *et al.* (2002) suggest that ‘soft’ due diligence in the cultural and HR areas are essential. ‘Soft’ due diligence enables a due diligence team to assess the strengths and weaknesses of the target’s management team as well as determining whether a systemic and structural redesign of the organisational structure is required. Further, ‘soft’ due diligence assists in examining whether notable differences between the cultures of the two organisations can be resolved.

4.6.2.5. Strategies/Considerations for analysing the motive/rationale

One of the initial steps in the due diligence process is determining and analysing the motive or rationale for considering the M&A. The reason for this step is that the due diligence team must understand the motivation behind embarking on the deal to focus their investigations on aspects which will be most pertinent to the deal.

Harvey and Lusch (1998) discuss seven theories behind M&A motivation. These are discussed in Table 4.12. These theories help the due diligence team in understanding the specific motive behind the M&A. This in turn assists them in selecting a suitable target and performing the appropriate due diligence investigations to fulfil the motivation behind the M&A.

Table 4.12 - Theories behind M&A motivation, adapted from Harvey and Lusch (1998)

Theory	Description
Efficiency theory	This theory suggests that M&A transactions are planned and executed to achieve financial, operational or managerial synergies.
Market power	This theory argues that the motivation for a M&A transaction is to increase control of a market (horizontal acquisition), or the reduction of competitive interest in the market and levels in a supply chain (vertical acquisition).
Valuation theory	This theory assumes that M&A transactions are based on information which is superior to the information available in the marketplace, like the detection of undervalued companies or the value created by two merging companies.
Empire building theory	This theory suggests that the motivation behind a M&A transaction is driven by the value that managers place on it which is not the same as the value which stakeholders place on the M&A transaction. This can be the result of the expiration of ownership and control in companies.
Process theory	This theory argues that the motivation for a M&A transaction is the result of a strategic planning process and the outcome of developing corporate strategies.
Raider theory	This theory views the motivation behind a M&A transaction being managers who want to pursue a target to break it up into smaller pieces to sell.
Disturbance theory	This theory looks at a M&A transaction as a strategy to unbalance their competitors and swing the balance of power in the acquirer's direction.

It is not enough to just understand the acquirer's motivation for embarking on a M&A transaction, a due diligence team should also try to analyse the potential target's reason or motivation for selling (Song *et al.*, 2009). In analysing the target's motivation for selling, the due diligence team can pick up on any potential red flags within the organisation. Further, the target's motivation for selling can assist the due diligence team in developing the pricing strategy for the target.

4.6.2.6. Strategies/Considerations for managing the due diligence team

Due diligence teams have already been discussed briefly in Section 4.5.1 as it was identified as a best practice. However, during the review, several strategies and considerations were identified in relation to due diligence teams. The due diligence team is an important aspect of the due diligence process as the team is essentially responsible for running the entire investigation. It is therefore important to put together a strong team which will ensure that all aspects of the due diligence investigation are conducted as comprehensively as possible.

The composition of a due diligence team can vary widely depending on the nature of the deal, the size of the organisation as well as the resources available (time, money and human resources). There are common elements to every due diligence team regardless of details of the specific deal. A due diligence team is almost always multidisciplinary; this reflects the multidisciplinary nature of due diligence.

Harvey and Lusch (1995) suggest a list of team members that are generally included on the due diligence team. As mentioned, a due diligence team can vary widely between each deal. The team is usually led by the acquisition team leader whose responsibilities include the coordination or integration of data as well as managing the personnel working on the deal. An expert from the target's industry is usually included in the team. There will then be representatives from each functional area in the company, such as marketing staff and production engineering personnel who will spearhead the marketing due diligence and technology or operational due diligence respectively. A team will almost always involve outside legal counsel who deal with any legal issues that arise as well as managing the regulatory side of the deal such as dealing with the competition authorities in the respective country. The team will also involve personnel from the accounting department as well as an external accountant. A high-ranking representative from the target is also a part of the team. Finally, a member of both the negotiating team and integration team are included in the due diligence team.

A report by Grant Thornton (2004) states that the coordination of the due diligence team is crucial in ensuring that the process is managed efficiently and that information is received by decision makers consistently. The report suggests that the role of coordination generally falls in the hands of outside counsel. Further, the report cautions that information should be carefully selected for decision makers as they should not be overburdened with unnecessary information. Thus, it is critical for the due diligence team to understand the objective and motivation for embarking on the deal.

The due diligence team should work closely with the deal team running the transaction as there must be an understanding on the work product the due diligence team is expected to produce. The final work product can range from a short report which just highlights the major problems and risks uncovered during the investigation (often referred to as a “red flag” due diligence report) to a report which is very detailed which specifies all information uncovered during the investigations. The type of report a due diligence team may be asked to produce may lie anywhere on the spectrum between these two extremes. The team usually produces a summary memorandum which highlights the primary issues uncovered (GrantThornton, 2004).

Finally, it is important to broaden the perspective of the due diligence team (Marks and Mirvis, 2015). The inclusion of HR professionals, operations managers, marketing staff and other non-financial and non-legal staff improves the effectiveness of the due diligence team and ensures that the investigations are thorough. The inclusion of these personnel means that business practices, organisational structures and corporate cultures, to name a few factors, can be better analysed to identify any significant issues or potential synergies. Further, the inclusion of line management assists in building an understanding of the reasons for embarking on the M&A transaction. and leads to buy-in from the personnel who will be responsible for ensuring a smooth integration of the acquirer and the target (Marks and Mirvis, 2015).

4.7. Chapter 4: Conclusion

The objectives of this chapter is to identify the key concepts relating to the three categories identified: areas of due diligence, due diligence process factors and due diligence principles and concepts. The methodological approach that is followed during the review is presented in Section 4.2. The search strategy and analytical procedure is also described.

The review identified a number of concepts relating to risk and success factors, tools, planning, costs, steps, best practices, strategies and considerations. The most important concepts identified were discussed and analysed.

The review highlights the complexity of due diligence and the number of factors which can affect the process. The review illustrates that there is no single approach to due diligence. The key concepts identified in this chapter are used to construct the conceptual framework in the next chapter.

Chapter 5 – Conceptual Framework Development

Document Framework								
CFA	Map data source	Categorize data	Identify concepts	Deconstruct & categorise concepts	Integrate concepts	Synthesis	Validation	Rethinking
Part	PART 1 Problem landscape and literature analysis			PART 2 Chapter 5			PART 3 Framework validation and revision PART 4 Development of a DDM tool	

Chapter 5 covers the development of the proposed conceptual framework. The outcomes of Chapter 3 and Chapter 4 form the basis of the conceptual framework. The conceptual framework has four fundamental components that are each addressed in sections 5.2 to 5.5. An introduction to the framework is provided in Section 5.1 to explain how concepts were arranged and grouped to form a conceptual framework. The key outcomes of Chapter 5 are presented in Figure 5.1.

Key Outcomes	Present the framework development process
	Illustrate the structure of the framework
	Present the conceptual framework

Figure 5.1 - Key Outcomes – Chapter 5

5.1. Introduction to the framework development

The framework has been developed by addressing phases 5 and 6 of Jabareen's (2009) CFA. These phases along with the actions taken are elaborated upon in Section 5.1.1 and Section 5.1.2.

5.1.1. Phase 5: Integrating concepts

Phase 5 of the conceptual framework analysis method (Jabareen, 2009) involves integrating similar concepts into one concept and grouping these concepts according to their functionality. The main goal of this phase is to reduce the total number of concepts into the main characteristics of the subject. This phase was partially addressed in Chapter 4 whereby concepts with the same attributes and goals were combined. Therefore, the primary factor which needs to be addressed for phase 5 is to group the concepts according to their characteristics.

To determine the main characteristics, the overall aim of the research project was considered. The aim of this research is to provide a systematic approach to managing the due diligence process by addressing the significant constraints, specifically, cost and time, facing the due diligence process. This research also endeavours to address the risk factors associated with a M&A deal. By addressing these three issues in combination, this research aims to increase the probability of success for a M&A deal by ensuring that the due diligence process is adequate and comprehensive.

From the analysis of the aim, it was deduced that management of the due diligence process is a key characteristic by which to group the concepts. Furthermore, it is necessary to address the areas of due diligence. In Chapter 3 and Chapter 4, it was found that several authors (Harvey and Lusch, 1998; Lovallo *et al.*, 2008; Tsao, 2009; Marks and Mirvis, 2015) supported the notion of splitting due diligence up into three phases, namely: preliminary due diligence, due diligence review and transactional due diligence. The due diligence review is the 'traditional' due diligence review step where the objective is to collect and evaluate information on the target according to the different areas of investigation. It is therefore appropriate to characterise the areas of due diligence under the due diligence review.

Concepts, such as, team leadership, reporting lines, and communication, which were identified in Chapter 3 and Chapter 4 are organised according to the following two characteristics: due diligence process management and due diligence review. These characteristics form the two core components of the framework. Figure 5.2 provides a breakdown of where concepts have been allocated to the two characteristics. The concepts are allocated according to their features and whether they fall within the scope of the characteristic. The concepts which lie within these two characteristics then contribute towards the content of the framework.

Figure 5.2 - Features of the two characteristics

5.1.2. Phase 6: Synthesise concepts into a conceptual framework

Phase 6 of Jabareen's (2009) CFA involves the synthesis of concepts into a conceptual framework. An iterative approach is suggested whereby concepts should be synthesised and resynthesised until a logical, clear and reasonable result appears. Several iterations of the conceptual framework were developed until the final one was selected. This is the framework which is presented in the remainder of this chapter.

Since the due diligence review characteristic has been included as a core component of the framework, it is also necessary to include the remaining two phases from the three-step model of due diligence (Harvey and Lusch, 1998; Lovallo *et al.*, 2008; Tsao, 2009; Marks and Mirvis, 2015).. The remaining two steps of the model are the preliminary due diligence step and the transactional due diligence step. These two steps form the minor components of the framework.

The structure of the framework is therefore composed of four components, two of which are core components whilst the other two are minor components. The reason for this differentiation is to emphasize the most crucial aspects of the framework, being process management and the due diligence review. Figure 5.3 provides a depiction of the structure of the framework, the core components have been indicated in blue, whilst the minor components have been indicated in purple.

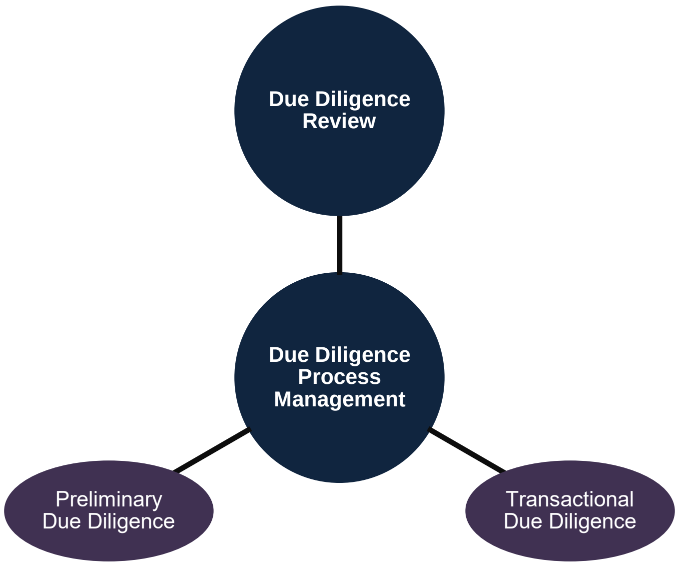


Figure 5.3 - Structure of the framework

Once the structure of the framework has been established, it is necessary to develop the content of each component. The content comprises of the concepts which have been identified. These concepts have already been categorised in Chapter 4. These concept categories are used to formulate the content of each category. Each component is discussed in further detail in the remaining sections of this chapter.

5.2. Component 1: Due diligence process management

As the first of the two core components of the framework, namely, due diligence process management, is responsible for providing a basis to administer the entire due diligence process from start to finish, this component's key goal is to project manage the entire due diligence process.

In Section 5.1.1, it was found that the categories of concepts characterised under due diligence process management include best practices, success factors, risk factors, constraints, planning, strategies and team. After attempting to arrange these categories in several different combinations, the best approach was to organise this component of the framework according to the various activities which must be completed to ensure that the due diligence process is carried out as comprehensively as possible.

The activities identified include: (1) composing the due diligence team, (2) understanding the motive and rationale for the deal, (3) planning the due diligence process, (4) conducting the due diligence review, (5) summarising findings, (6) providing recommendations, and (7) providing post-merger support. These activities have been identified from the concepts identified in Chapter 3 and Chapter 4.

The categories of concepts included in due diligence process management were then allocated to each of these activities depending on how they relate to the overall objective of each activity. A summary of the activities with key concepts for each activity is provided in Table 5.1. Each activity is subsequently broken down and discussed in the remainder of this section.

An important clarification to make is that these activities do not necessarily occur in the order in which they are presented. For instance, it may be the case that the due diligence team is only finalised once the planning activities have been completed. The order of activities depends on the nature of the deal as well as the constraints facing the due diligence process, such as, time, budget and personnel constraints.

Table 5.1 - Component 1: Due diligence process management

<table>
<tr><th colspan="8">DUE DILIGENCE PROCESS MANAGEMENT</th></tr>
<tr><th>Activity</th><th>Due Diligence Team</th><th>Motive & Rationale</th><th>Planning</th><th>Due diligence review</th><th>Summarising findings</th><th>Recommendations</th><th>Post-merger support</th></tr>
<tr><td rowspan="6">Concepts</td><td>Team leadership</td><td rowspan="2">Identify primary motive for embarking on the deal</td><td rowspan="2">Results of preliminary due diligence</td><td>Data room</td><td rowspan="2">Keep an organised paper trail for all investigations</td><td>Synergy estimates</td><td rowspan="2">Carry out transactional due diligence</td></tr>
<tr><td>Team composition
(Refer to Table 5.2)</td><td>Team leader must provide oversight</td><td>Establish a walk-away price</td></tr>
<tr><td>Reporting lines</td><td rowspan="2">Consult senior management/deal team to understand motive and rationale</td><td rowspan="2">Constraints (time, budget, personnel, situational factors)</td><td rowspan="2">Co-ordination between different investigations</td><td>Summary of each investigation</td><td rowspan="2">Recommendations for negotiations team</td><td>Provide support to the deal process</td></tr>
<tr><td>Communication</td><td>Specialist report by experts</td><td>Support the negotiation process</td></tr>
<tr><td>Size of team influenced by constraints</td><td rowspan="2">Identify synergies and risks relating to motive and rationale for the deal</td><td>Risk factors
(Refer to Table 5.3)</td><td rowspan="2">Carry out investigations according to the checklist</td><td>Create a diligence synthesis document</td><td rowspan="2">Integration recommendations report</td><td>Support the integration process</td></tr>
<tr><td>External experts / Professional services</td><td>Checklist and timelines</td><td>Create executive summaries</td><td>Reflection document</td></tr>
</table>

5.2.1. Due diligence team

The first activity in due diligence process management is to establish the due diligence team. The process for establishing a due diligence team has been derived from best practices (see Section 4.6.1). There are various factors which must be considered when establishing the team such as the team leadership and composition, the various reporting lines, as well as constraints. The size of the due diligence team varies depending on the size of the transaction as well as the resources available. For large transactions, it may be necessary to include a large number of personnel on the team to deal with the amount of information on hand whereas on smaller transactions, this may not be necessary. The size of the due diligence team is further determined by constraints which are present. Constraints include the time available to complete the investigations, the amount of personnel available as well as the budget allocated to the due diligence investigations (GrantThornton, 2004; Adolph, Gillies and Krings, 2006; Morrison, Kinley and Ficery, 2008).

The composition of the due diligence team may vary widely depending on the nature of the deal; however, there are always certain roles which must be fulfilled on the team. Specific roles may be fulfilled by more than one person depending on the amount of work a specific role requires. Table 5.2 provides a list of the crucial roles within the due diligence team which must be fulfilled. The table also indicates whether personnel for these roles may be sourced internally from within the organisation or externally by consultants, lawyers and auditors. The role of the team leader is to co-ordinate and manage the due diligence team. The team leader is usually chosen from senior management or the deal team. In some instances, it may be necessary to appoint an external advisor or consultant as the due diligence team leader (Harvey and Lusch, 1995; Bruner, 2004; GrantThornton, 2004; Beech and Thayser, 2015).

Table 5.2 - Composition of the due diligence team

Role	Internal / External	Description
Industry expert	Both	This role should be fulfilled by someone who has expert knowledge on the target industry to direct investigations and identify industry-specific risks. This role may be fulfilled by someone from the acquiring organisation if the acquirer is in the same line of business as the target.
Representative from each functional area	Internal	Representatives from key functional areas from the acquirer, such as, finance, legal, HR, marketing, operations etc. should be included to assist in investigations in the different areas of due diligence.
Legal counsel	Both	Legal counsel is required for every due diligence investigation to ensure that due diligence carried out is compliant with laws and regulations in place. Legal counsel also provides guidance on anti-trust/competition regulation issues. Further, legal counsel assists in legal and tax due diligence areas where necessary.
Auditor	External	The role of the auditor is to assist in the valuation of the target in addition to assisting in the financial and tax due diligence areas.
Representative from the target	External	The target should send a representative to act as a liaison between the target and acquirer. This representative is responsible for ensuring access to the target’s information by the rest of the due diligence team.
Representative from the negotiations team	Internal	The role of the representative from the negotiations team is continuously communicate key findings by the due diligence team to the negotiations team to inform the discussions taking place by this team

Representative from the integration team	Internal	The role of the integration team representative is to share information uncovered during due diligence with the integration team to inform their planning processes.
External advisors	External	External advisors should be brought on where there is a lack of expertise or knowledge on specific areas of due diligence, for example operations experts or strategic due diligence experts.

Communication is key in the due diligence process as different investigations can feed into each other and there can often be overlap. It is critical that reporting lines be set up between the members of the due diligence team to ensure that communication is effectively managed during investigations. Co-ordination of the team should fall under the team leader's responsibility with the aid of external counsel in cases where the due diligence team is large. Furthermore, communication channels between the due diligence team and deal team should be restricted to select members of the due diligence team to ensure that the deal team is not overburdened with information (Adolph, Gillies and Krings, 2006).

5.2.2. Motive and rationale

Understanding the motive for embarking on an M&A deal is important for ensuring success in the due diligence stage. Through understanding the motivation for the deal, the due diligence team can analyse potential targets by performing the appropriate investigations. Furthermore, the due diligence team can plan the due diligence investigations effectively to ensure that the motivation behind the deal is fulfilled (GrantThornton, 2004).

The due diligence team must consult senior management to establish the motivation behind the deal. Senior management is responsible for setting out the strategic objectives for the deal thus it is imperative that they provide a motive and rationale for the deal to the due diligence team to focus their investigations (Harvey and Lusch, 1998; Cullinan, Le Roux and Weddigen, 2004; GrantThornton, 2004).

The motive and rationale for the deal can alert the team to the potential synergies that they should be looking out for in the deal whilst also identifying risks associated with a particular rationale. As an example, if the rationale for the deal falls into the efficiency theory category (see Section 3.1.3), the team would understand that it is crucial to identify potential financial, operational and managerial synergies with the target. By identifying whether these synergies exist, the team can evaluate if the target is a suitable candidate for the acquisition (Cullinan, Le Roux and Weddigen, 2004; Song *et al.*, 2009).

5.2.3. Process planning

Process planning is a critical activity in due diligence as it sets the foundation for the entire process. Effective planning is essential to ensuring that the due diligence process is properly managed and that all constraints facing the process are carefully considered and accounted for.

There are four tasks that make up the process planning step: (1) analysing the results from the preliminary due diligence investigation (see Section 5.4) to drive the planning process, (2) determining the constraints facing the due diligence process, (3) developing risk mitigation strategies for all risks facing the due diligence process, and (4) developing an investigation checklist and timeline.

5.2.3.1. Results of preliminary due diligence

The results of the preliminary due diligence investigations conducted on the target assist in driving the planning process. Preliminary due diligence affords the due diligence team the opportunity to gain insights into the target. They therefore have some understanding of the target such as its financial position. Furthermore, potential synergies which have been identified during preliminary due diligence can help in focussing the due diligence review on important areas (Harvey and Lusch, 1998; Marks and Mirvis, 2015).

Preliminary due diligence can also unearth some of the risks associated with the target. This becomes useful later in the process planning phase where risks must be identified, and strategies developed to deal with the perceived risks (Harvey and Lusch, 1998; Marks and Mirvis, 2015).

5.2.3.2. Constraints facing the due diligence process

This task is critical to the success of the due diligence process. Due diligence processes which have not considered constraints can often result in prolonged timelines, exceeding costs and a higher likelihood of a failed deal. Due diligence investigations can run for an unlimited amount of time and draw in significant resources if the process is not properly controlled and managed (Harvey and Lusch, 1995; GrantThornton, 2004).

Control of the due diligence process is established by acknowledging the constraints facing the process and planning effectively to maximise the value which can be derived from the due diligence investigations. Constraints facing the due diligence process manifest in the form of time, budget, personnel and situational factors, illustrated in Figure 5.4.

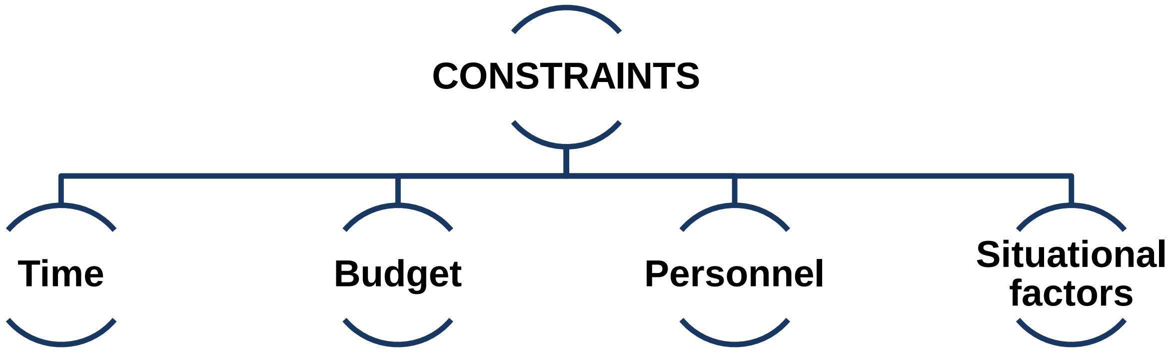


Figure 5.4 - Constraints facing the due diligence process

Time is usually the most significant constraint facing the due diligence process due to the sensitive nature of many M&A deals. Therefore, it is important that the deal team define a clear timeline in which the due diligence team is required to conduct and finalise their investigations. There are countless investigations which can be carried out; however, each investigation requires a certain amount of time to be completed. Therefore, investigations must be prioritised according to importance so that crucial investigations are carried out earlier in the due diligence process (GrantThornton, 2004; Adolph, Gillies and Krings, 2006).

Budget is another constraint which can hinder the due diligence process, and it will depend on the size of the target as well as the financial standing of the acquirer. Due diligence investigations can be a costly affair as the process is resource intensive. Costs can often spiral out of control if they are not managed properly. Senior management will usually allocate a budget to the due diligence team to carry out their investigations. The budget must account for costs, such as, carrying out the investigations, external legal counsel, the external auditor, and any other experts that are brought on to assist the investigations. There may also be costs involved in procuring information or data. It is imperative that the due diligence team discuss how the budget will be allocated to ensure that the risk of overspend is minimised (Harvey and Lusch, 1995; GrantThornton, 2004; Adolph, Gillies and Krings, 2006).

A further constraint which must be accounted for is that of personnel. The acquirer may not have all the human resources necessary to establish a due diligence team. Furthermore, personnel within the organisation may not have the expertise required to conduct some of the area-specific investigations. In these situations, it may be necessary for the due diligence team to call in external advisors to fill in the gaps on the due diligence team which will place additional strain on the budget. The acquirer must assess their human resources situation early on to ascertain whether there will be a lack of people or a skills shortage and adjust the budget accordingly to ensure that important positions on the due diligence team are filled (Harvey and Lusch, 1995; GrantThornton, 2004).

The final constraint which must be accounted for are situational factors. Situational factors encompass the type and nature of the deal being pursued. Deals such as cross-border or hostile takeovers place constraints on the due diligence process in different ways. An example of this is when a due diligence must be rushed owing to the sensitive nature of the deal. Another situational factor that can constrain the due diligence process are legal constraints, which limit the amount of information that the due diligence team has access to in certain aspects of the business. Situational factors must be analysed on an individual basis as each constraint will have to be dealt with differently and the constraints can vary depending on the nature of the deal (Harvey and Lusch, 1995; Bradley, 2016).

5.2.3.3. Risk factors and mitigation strategies

Due diligence plays a crucial role in the M&A deal process. A large part of the success of a deal lies in a comprehensive due diligence process. It is therefore necessary to identify all risk factors facing a due diligence process in order to assist in managing the process and ensuring the highest probability of a successful outcome.

Risk factors are mostly deal-specific however there are common risk factors that can surface in any due diligence process. The common risk factors presented here were identified during the systematic literature review in Section 4.5.1. Table 5.3 provides a list of these risk factors. The risk factors have been ordered in terms of the level of their perceived risk. Risk factors flagged in red have been identified as critical risk factors which must be managed at all costs. The risk factors flagged in orange are those which do not impose a serious threat but should be monitored closely. It must be noted that the list of risk factors displayed in Table 5.3 is not an exhaustive list, the list is intended to be expandable as new risk factors are identified, and the risk factors will vary depending on the nature of the transaction.

Once risk factors have been identified, it is important that the due diligence team develop risk mitigation strategies to deal with the risks in the best way possible. Having the due diligence team coming together to discuss risks that have been identified for the due diligence process is important as this ensures that all team members are cognisant of the risk factors when they are conducting their investigations.

Table 5.3 - Common risk factors in the due diligence process

Risk Factor	Level	Description	References
Rushed due diligence	High	Due diligence is often hurried as excitement for the deal rises. The due diligence process is then carried out inadequately which may lead to overestimations of revenue enhancements and cost savings and underestimations of the resource requirements and difficulties involved in integrating businesses.	(Marks and Mirvis, 2015)
Ignoring organisational, HR and cultural issues	High	Ignoring organisational culture differences, HR or cultural issues may have high long-term hidden costs. These people or cultural issues either never surface during the due diligence or the acquirer underestimates their importance and fails to recognise them as warning signs of business problems that could sap value from the deal and even threaten the success of the transaction.	(Horwitz *et al.*, 2002) (Latukha and Panibratov, 2013) (Lovallo *et al.*, 2008)

Limiting the due diligence process	High	Limiting the due diligence process to an evaluation of financial statements, management, and physical assets leaves the acquisition process, and more importantly the acquirer, with serious vulnerabilities. It is essential that the due diligence process go beyond the obvious analyses and include a detailed self-analysis and thorough review of the markets and competitive environment of prospective acquisitions.	(Lebedow, 1999) (Harvey and Lusch, 1995)
Information asymmetry	High	A significant risk is a lack of information or withheld access to information due to confidentiality or unwillingness of the target to voluntarily share information. Often the due diligence process must be kept quiet with only a limited number of people involved therefore limiting the scope and depth of due diligence.	(Patrick Lemieux and Banks, 2007)
Shortened timescales	High	Many deals have short timeframes therefore putting pressure on the due diligence team to conduct their investigations as quickly as possible. There is a risk that the investigations will not be as comprehensive due to the tight schedule resulting in certain aspects being overlooked which can lead to problems further in the deal-making process.	(GrantThornton, 2004)
Unsuitable target	Medium	A common cause of M&A deal failure is due to the incorrect selection of a target. Due diligence investigations can mitigate this risk if the investigation into a potential target is thorough.	(Song *et al.*, 2009)
Entrenched business processes	Medium	Companies that acquire targets from firms in maturing industries must "untangle" the target's business processes from its parent company. In most cases, the pieces being sold have entrenched processes and cultures that are difficult to integrate into the buyer's organisation.	(Perry and Herd, 2004)
Overestimation of synergies	Medium	The promise of synergies is often one of the leading motivations for embarking on a M&A transaction. This emphasis on synergies does mean that if synergies are overestimated, there is a significant risk that the deal will not produce the anticipated results.	(Garzella and Fiorentino, 2013)
Too much due diligence	Medium	It is possible for a deal to become paralyzed by the amount of due diligence being conducted on the target. It is true that the more detailed the due diligence, the greater the degree of certainty for the deal; however, there is a point where the cost of obtaining information outweighs the benefit.	(GrantThornton, 2004)
Overlap of the different lines of enquiry	Medium	At some stage in the due diligence process, the various lines of enquiry will overlap and impact the findings of one another. The people leading the different enquiries should communicate regularly to establish a basis of understanding of where the due diligence process is at.	(GrantThornton, 2004)

5.2.3.4. Investigation checklist and timeline

This aspect involves the formation of a checklist of investigations which should be carried out during due diligence. This begins by identifying the areas of due diligence to be covered. The areas of due diligence are selected according to the nature of the deal, the industry within which the target resides, and the motive and rationale behind the deal.

Once the areas of due diligence have been selected, the due diligence team must then decide on which investigations need to be conducted in each area of the due diligence process. Best practice dictates that the investigations should focus on what matters most (Perry and Herd, 2004; Morrison, Kinley and Ficery, 2008). The team must identify the investigations that drive the overall value of the deal and direct a significant amount of resources towards these investigations. On a cautionary note, the due diligence team must be careful not to narrow their focus as important information may be overlooked by doing so.

Another factor which the due diligence team must consider when deciding which investigations to conduct is the potential synergies, which would have been identified during the preliminary due diligence stage. The due diligence team must conduct specific investigations to examine these potential synergies in depth to establish whether these synergies may be achieved (Cullinan, Le Roux and Weddigen, 2004).

Once all investigations have been identified, a checklist should be formulated. This checklist acts as a guideline for the due diligence review and helps to ensure that all investigations are completed. The checklist should include details, such as, the personnel responsible for the investigation, the budget allocated to the investigation as well as the time in which the investigation should be completed with a firm deadline.

A timeline should be created which accounts for each investigation. Buffers should be incorporated into the timeline to account for any potential overruns in the investigations.

5.2.4. Due diligence review

The next step in managing the due diligence process is conducting the due diligence review. The specific details of the due diligence review are discussed in Section 5.4. The due diligence review accounts for most of the work completed in the due diligence process. As such, the due diligence team must pay close attention to the review.

A data repository or data room should be set up where information and data collected during the due diligence review can be stored. This data repository should be secure, and access should only be granted to members of the due diligence team and the deal team. The data repository ensures that all information is stored in a common environment minimising the impact of a leak of sensitive deal information whilst also ensuring that all data and information can be accounted for. A record should be maintained to track data and information that is entered in and accessed from the data repository (GrantThornton, 2004; Morrison, Kinley and Ficery, 2008).

The team leader must play a significant oversight role in the review and ensure that the investigations are well co-ordinated whilst also managing the budget for the review as well as the timeline. There should be regular feedback and updates along the reporting lines in the team regarding the status of investigations. In this way, the due diligence review can be managed effectively and completed within the allocated timeframe.

5.2.5. Summarising findings of process management

Following the completion of the due diligence review, the due diligence team must summarise all findings of their investigations. Since the findings from the due diligence investigations support the negotiations as well as post-merger activities, it is crucial that the due diligence team keep an organised paper trail for all investigations which were carried out (Bruner, 2004).

A summary for each investigation should be compiled by the team member(s) responsible for that investigation. If experts were called in to assist with any investigation, a specialist report should be complied by the expert to summarise all findings of the investigation.

A diligence synthesis document must be created. This document provides a technical overview of the entire due diligence review. A master reference should be included to index all data and information collected during the due diligence review. This document is drafted with the negotiators in mind, thus providing them with key findings of the due diligence review (Bruner, 2004).

Executive summaries should be compiled for senior management within the organisation. The purpose of these executive summaries is to inform and guide senior management. This provides the executive with an understanding of the target whilst informing them on the progress of the due diligence process.

5.2.6. Recommendations

There are three main reasons for conducting a due diligence investigation, namely: (1) to aid in the decision-making process on whether to proceed with a deal, (2) to inform how the deal is structured, and (3) to assist in integration planning. Therefore, it is important for the due diligence team to provide their recommendations as this is the culmination of the entire due diligence process.

Due diligence investigations identify and quantify potential synergies that exist with the target. These synergies which have been identified can assist the deal team in deciding whether it is beneficial to continue pursuing the deal. Further, synergy estimates can have an impact on the negotiations with the target. Synergies also enable the integration team to decide on which actions to undertake for the maximum value to be realised for the deal (Gould, 1981).

The due diligence team's recommendations to the people leading the negotiations are crucial. The negotiations rely on data derived from the investigations to establish the price for the deal. The price is based on all the information gathered during due diligence as well as the valuation conducted on the target (Breitzman and Thomas, 2002). The information uncovered during due diligence allows the negotiations team to defend the purchase price of the target both internally to senior management and externally to financiers of the deal.

The negotiations team must also establish a walk-away price. The walk-away price is the maximum amount which the organisation is willing to pay to acquire the target (Cullinan, Le Roux and Weddigen, 2004). This walk-away price should not include potential synergies as these can only be realised once the deal has been completed and there is always a possibility that these synergies may not be realised post-deal.

The due diligence team should compile a report with integration recommendations for the integration team. The integration team uses these recommendations in their planning process and integration strategy. It is often the case where a high-ranking member of the due diligence team will form part of the integration team to ensure that important data and findings are implemented in the integration of the two organisations (Adolph, Gillies and Krings, 2006). Due diligence investigations highlight significant risks which exist within the target thereby allowing the integration team to take these risks into consideration and mitigate their potential of occurring.

5.2.7. Post-merger support

A comprehensive due diligence process does not end once the recommendations have been made. The due diligence team should continue to provide support to the deal process. Transactional due diligence should be carried out by the team (see Section 5.5). Support must be given for the negotiation process by providing further recommendations backed up by the information gained during the due diligence review as well as new findings uncovered during transactional due diligence.

The due diligence team should also provide support to the integration efforts once the deal has been confirmed. Transactional due diligence plays a part in this process since the acquirer now has unrestricted access to information on the target. The due diligence team is especially useful to the integration process as they provide information on risks uncovered during their investigations as well whilst suggesting which synergies the integration process should focus on to extract the most value from the deal (Harvey and Lusch, 1998; Marks and Mirvis, 2001; Lovallo *et al.*, 2008; Tsao, 2009).

During this stage, the due diligence team should also analyse their entire due diligence process. A document should be produced that sets out how the main objectives of the process were achieved, the difficulties that were encountered, and the recommendations for any future due diligence processes that the organisation might embark on. This ensures that the organisation keeps a track record of their due diligence activities whilst also ensuring that successful aspects of the process may be replicated for future investigations.

5.3. Component 2: Preliminary due diligence

This component is a minor component of the framework. This means that it is not strictly necessary to execute this component of the framework; however, it is strongly advisable to do so as the chances for completing a successful deal will be a lot higher. The preliminary due diligence component forms the first step of the three-step model (see Section 4.5.6) for due diligence, hence its inclusion in this framework. The main objectives and investigations of this component are summarised in Table 5.4, along with the information and data which is required to conduct the investigations.

Table 5.4 - Component 2: Preliminary due diligence

PRELIMINARY DUE DILIGENCE	
Objectives	Conduct a formal evaluation of the potential targets to assist in selecting the most appropriate target.
Investigations	Superficial financial evaluation of all potential targets
	Identification of potential synergies with the various targets
	Identification of any significant risks
Information or data	Publicly available financial statements
	Publicly available information on the potential targets (e.g. articles, company website, web-searches, reports)

Preliminary due diligence takes place before target selection. The aim of preliminary due diligence is to begin a formal evaluation of the potential targets. Any public information on the potential targets should be gathered to better inform managers or the deal team and assist them in the selection of an appropriate candidate (Harvey and Lusch, 1998; Marks and Mirvis, 2001).

A high-level financial evaluation of the potential targets should be carried out to gain an understanding of the financial situation of the company. This should not be an in-depth analysis as this will be a waste of time, budget and personnel resources at this early stage. All potential targets must be evaluated against the same criteria. Further, any information which can be gathered on the potential targets should be examined to assist in target selection (Marks and Mirvis, 2001; Tsao, 2009).

The due diligence team should try to uncover any potential synergies that may exist with the target. Synergies can be used in testing the commercial attractiveness of the deal and provide useful information on whether to proceed with a deal (Lovallo *et al.*, 2008; Savovic and Pokrajcic, 2013).

Preliminary due diligence should also try to uncover any significant risks associated with the potential targets. This will assist in identifying a suitable target where risks are minimised. Furthermore, risk identification at this stage assists in the planning activity of the process management component of this framework.

5.4. Component 3: Due diligence review

The third core component of the framework is the due diligence review which is where the 'traditional' due diligence activities are carried out. As discussed in Section 5.1.1, the due diligence review is made up of the various areas of due diligence identified in the systematic literature review (see Section 4.4). Information on the target is collected and evaluated during the review to provide recommendations and support the decision making process for the deal (Harvey and Lusch, 1998; Tsao, 2009; Savovic and Pokrajcic, 2013; Marks and Mirvis, 2015).

This component has been structured according to the different areas of due diligence. The areas of due diligence that are covered include only those identified in the review; however, the framework has been structured to be expandable. Should there be developments in the due diligence process literature, and new areas of investigation become standard practice, these new areas can be added to the framework with relative ease.

The due diligence review presents the important investigations which should be completed for each area along with the tools, data and information which are necessary to conduct the investigations. Furthermore, area-specific best practices are included where applicable. The lists for investigations and the corresponding tools, data and information presented in Table 5.5 are not exhaustive. The aim is to provide an overview of the most important investigations for each area. All information in Table 5.5 is derived from the outcomes of the systematic literature review in Chapter 4, as well as a checklist of investigations proposed by Bruner (2004).

Table 5.5 - Component 2: Due diligence review

FINANCIAL DUE DILIGENCE
Investigations
• Ratio analysis and trend analysis • Analysis of right-hand side of the balance sheet • Asset structure analysis • Statement of cash flows analysis • Share price analysis • Assessment of sales, net income and wage expense • Income statement and balance sheet comparison with industry standards and peers • Assessment of cash management practices • Evaluation of accounts receivable • Assessment of internal management reporting system • Evaluation of firm's abilities to collect overdue receivables • Review commissions, selling expenses, general and administrative expenses • Examine extraordinary and nonrecurring expenses
Best Practices
• Obtain an audit opinion from an external auditor
Information/Data/Tools
• Monthly, quarterly and annual financial statements (at least 3 years) • Financial results by division/department • Current year projected financial statements • List of bank accounts and related balances • List of total receivables balances due from customers, officers, employees and others • List of accounts payable • List of suppliers with approximate annual amounts purchased • List of contingent liabilities and their amounts • List of contracts and agreements with any indication of price renegotiation or redetermination
LEGAL DUE DILIGENCE
Investigations

- Identify outstanding legal matters which must be dealt with in the M&A agreement
- Investigate the accuracy and validity of the warranties and representations of the target
- Assess the ownership situation of all assets owned by the target
- Examine all past and pending litigation at the target
- Assessment of target's compliance with all government regulation and legislation

Information/Data/Tools

- List of charges pending against the target
- List of ongoing disputes with suppliers, competitors and customers
- List of decrees, orders or judgements of courts or regulatory agencies
- Copies of pleading or correspondence for pending or previous lawsuits involving the target
- Copies of material contracts, sales and purchase agreements
- Copies of titles, deeds, patents, proofs of purchase and any other ownership documents

TAX DUE DILIGENCE

Investigations

- Reconcile tax returns to financial statements
- Estimate net operating loss carryovers and investment tax credits
- Identify opportunities for tax savings and synergies
- Determine if the target has any unpaid taxes
- Investigate any potential tax fraud

Best Practices

- Obtain an opinion from the external auditor on the target's conformity to past and current tax obligations

Information/Data/Tools

- All tax returns for previous five years
- List of all taxes for which target is liable for
- Date and result of latest audit
- Record of payroll tax deposits and compliance with withholding requirements

STRATEGIC DUE DILIGENCE

Investigations

- Investigate the commercial attractiveness of the deal
- Determine whether the targeted value of the deal can be realised

Information/Data/Tools

- Transcripts of investor meetings
- Shareholder presentations, webcasts and other communications

ENVIRONMENTAL DUE DILIGENCE

Investigations

- Assess the EMS of the target
- Investigate compliance with environmental laws and regulations
- Identify exposure to environmental liabilities and estimate costs to remediate
- Assess the target's compatibility with the acquirer's environmental strategy
- Assess all commercial and residential real estate held by the target

Information/Data/Tools

- Six factors of EMS assessment
- List of previous and pending environmental claims and litigation
- List of penalties for noncompliance with environmental regulations
- Data pertaining to the storage, transportation and disposal of hazardous and non-hazardous materials
- List of operating permits, compliance files and registrations
- Copies of pollution control capital expenditure reports
- Previous environmental assessments, technical reports and studies
- Disclosures to regulatory agencies regarding environmental liabilities

MARKETING DUE DILIGENCE
Investigations
• Evaluate cost effectiveness of sales promotion programs • Assess the target's brand strength and brand portfolio • Analyse qualitative sources of intangible asset information by using marketing investment ratios, marketing productivity ratios, and marketing operations efficiency ratios • Analyse the strength and effectiveness of the marketing and sales division of the target • Evaluate the compatibility of the target's sales and marketing policies with those of the acquirer • Identify potential revenue enhancement opportunities and synergies relating to marketing and sales • Determine exposure to service warranty claims
Best Practices
• Create a brand strategy which supports the acquirer's overall objective and deals with any brand-specific issues
Information/Data/Tools
• Recent advertising budget, including placement and timing of the advertisements • Current brochures and sales material • Articles and marketing studies relating to the target • Past and present press releases from the target • Cash flow attributed to the brand
OPERATIONAL DUE DILIGENCE
Investigations
• Identify all potential operational synergies and evaluate what it will take to achieve these synergies • Analyse the process flow of operations • Examine the quality of operations based on external measures and internal measures • Conduct a visual inspection of operations by a physical tour • Inspect operations assets to determine wear, maintenance and/or obsolescence • Inspect all inventory to determine obsolescence or damage • Analyse all subcontracted operations and determine appropriateness • Interview suppliers to determine issues • Calculate production break-even volume • Assess adequacy of controls over purchasing activities • Assess adequacy of distribution and logistical policies
Best Practices
• Use an industry specialist to help identify new sources of value or synergies
Information/Data/Tools
• Process architecture; inputs, outputs, flow units, network of activities and buffers, resources required and information structure • Product/Service attributes necessary to satisfy customers; cost, response time, variety and quality • Process attributes necessary to deliver products/services; cost, flow time, flexibility and quality • Data on utilization rates of manufacturing or service operations • List of order backlogs • List of assets in raw materials, work-in-process and finished goods inventories • Copy of quality control procedures • Records on defective products • Records on scrap and unshipped or rejected products • Records on subcontracted labour, parts or products • List of suppliers with copies of supplier contracts and commitments • Terms of payment to suppliers and/or vendor financing • Historical percentage of sales represented by purchased goods or services • Use of commodity agreements or other risk management devices to hedge price uncertainties in supply • Copies of distribution or logistical contracts

- Records of labour strikes and grievances

HR DUE DILIGENCE

Investigations

- Assess adequacy of employee benefit and incentive plans
- Review general labour pool in the target's geographical markets
- Estimate extent of over- or underfunding of health and retirement plans for both active employees and retirees
- Evaluate working conditions, attrition statistics and reason for attrition
- Assess medical problems and sick leave frequency
- Conduct interviews with target's managers for possible retention post-deal
- Investigate outstanding employees' compensation claims, unfair labour practice charges, civil rights claim and any other labour disputes

Best Practices

- Obtain external opinion regarding compliance of the target with government regulations
- Obtain external opinions on qualification of benefit plans and the adequacy of coverage

Information/Data/Tools

- Number of employees with details of job descriptions
- Wages, commissions, benefits and prerequisites for employee groups
- Organisation chart
- Employee performance reviews
- Biographical information on managers
- Information on employee incentive plans, retirement and health benefits as well as annual cost of premiums and percentage of premiums paid by employees
- List of unfilled positions
- Union contracts and material employment contracts
- History of compensation disputes and their outcomes
- Description of medical, vacation, transportation, tuition assistance and other programs
- Copy of all audit or actuarial reports concerning pension and retirement plans for recent years
- Description of stock options and phantom stock option incentive programs
- A list of promises of employee benefits not mentioned elsewhere
- Copies of written inquiries or complaint
- Fidelity bond and fiduciary liability insurance policies
- Administrative service contracts for all employee benefit plans
- A list of vacation plans or policies and employee fringe benefits
- Schedule of compensation paid to officers, directors and key employees showing salary, bonuses and non-cash compensation
- List of employee agreements and unwritten understandings
- Key employee losses to other firms
- Summary of labour disputes
- List of negotiations with any group representing employees
- Employment and consulting agreements, loan commitments and documents relating to other transactions with officers, directors, key employees, former employees and related parties
- Non-compete agreements with current and former employees

CULTURAL DUE DILIGENCE

Investigations

- Analyse communication style both internally and externally
- Examine decision making (top down vs. decentralized, unilateral vs. team-based)
- Evaluate culture of innovation (reliance on traditional approaches vs. experimentation with new methods)
- Explore extent of solutions sharing (extent of transfer of best practices within the firm)
- Investigate training practices (how much is required; focussed on functional silos vs. cross-firm)
- Explore work orientation (emphasis on processes and roles vs. getting results)

Best Practices
• Highlight cultural gaps between the two organisations
Information/Data/Tools
• Target's corporate statements on its mission, vision and values • Copies of departmental goals and objectives • Accounts about internal conflicts and how they were resolved • Accounts about firm traditions and celebrations • Observations on communication etiquette • Observations of in-person interactions between employees and between employees and customers • Observations of bulletin boards, cafeteria and reception areas • Copy of organisational chart • Copy of corporate capital expenditure procedures • Copy of corporate training offerings and attendance rates • Copy of agenda of recent senior management meetings with details on the structure and content • Biographical sketches on managers and supervisors • Accounts of conflict or harmony relating to diversity in the workplace • Records of charitable and political contributions of cash or in-kind resources • Copy of written code of conduct • Using employee surveys as a cultural assessment tool
MARKET DUE DILIGENCE
Investigations
• Determine the size of the market and calculate a three- to five-year growth outlook for each market segment • Determine the product requirements, features and specifications for each market segment • Describe each market segment's predominant buying influence • Define the breadth of the product line that is necessary to ensure success • Characterize the competitive situation within each market segment • Determine the profitability and ownership structure of the target's competitors within the market • Analyse current and expected pricing policies for product lines • Assess trends in sales cancellations, costs, variances from forecasts, customer complaints, lost customers and discount patterns
Information/Data/Tools
• Market size and growth prospects for the market • Target's market share • Information on the target's competition within the market • Major customer relationships with percentage of overall business • Channels of distribution for target and peers and their relative importance • Actual sales and forecasts for recent years, by department or product lines • Forecast of sales for the future • History of sales cancellations and their reasons • Sales and expenses per salesperson • Information on customer complaints and lost customers • Policy on product or service warranties and outstanding exposure • History of claims under warranties • Interviews with target's customers, distribution channels and competition
TECHNOLOGY DUE DILIGENCE
Investigations
• Assess the ability of the IT department to fulfil the needs of the target • Estimate the cost of bringing all departments up to the current level of technology that is available • Assess the compatibility of IT systems between the target and the acquirer • Evaluate the effectiveness of the target's IT department

• Create a plan for the post-merger integration of the target's IT with the acquirer's IT • Identify and assess the target's agreements in relation to IT hardware, software and maintenance
Information/Data/Tools
• List of current IT hardware and software along with dates of purchase and integration • List of current IT projects along with workflows and status reports • List of unfilled IT requests • Operating budget for the IT department • Hardware and software agreements with third parties with a log of all maintenance done
IP DUE DILIGENCE
Investigations
• Confirm that the target owns all IP rights • Review all property files dealing with patents and trademarks, trade secrets, copyrights, license agreements, confidentiality agreements, joint venture agreements and confirmation of payment of maintenance fees and taxes where applicable • Check for defects in property or issues in ownership whilst also searching for strengths and weaknesses of the IP • Investigate if there have been any charges of infringement made whether by the target or by an external party • Assess the economic significance and impact of comparable or new technology, copyrights, etc. if deployed by competitors • Profile the target's emerging IP • Identify potential benefits and costs of the transfer of IP and intangible assets from the target to the acquirer
Information/Data/Tools
• List of all patents granted, pending or to be pursued by the target • List of all copyrights, trademarks and service marks claimed by the target • List of all disputes over IP or infringement claims • List of comparable IPs held by competitors • Policies and procedures for documenting and protecting inventions or creations • History of royalties or indemnifications • Contracts regarding the use or protection of intellectual and intangible assets
R&D DUE DILIGENCE
Investigations
• Investigate the adequacy of management of R&D program • Assess the effectiveness of R&D efforts • Assess the capabilities of the R&D department
Information/Data/Tools
• Description and rationale for R&D projects in process currently • Forecast of completion dates and costs for ongoing R&D projects • Historical cost of R&D projects and success rate

5.5. Component 4: Transactional due diligence

Transactional due diligence is a minor component in the framework. Transactional due diligence is the last step in the three-step model of due diligence (see Section 4.5.6). Transactional due diligence takes place once the deal has been finalised. In many cases, the due diligence process ends after the deal has been signed; however, it is strongly advisable to not do this. There are three main reasons for continuing the due diligence process.

The first reason is that the due diligence team has the most information about the target. They are therefore able to assist the integration team in their efforts to ensure a smooth transition to the new organisation and minimise the risks posed by integrating two organisations (Harvey and Lusch, 1998).

The second reason is that there are key integration issues which must be addressed during the merger of the two companies (Harvey and Lusch, 1998). If these integration issues are not addressed adequately, there is a strong possibility that the deal will fail. The due diligence team is in a prime position to assist in addressing these integration issues as they have the appropriate information and analyses on hand. These insights are crucial in confronting the integration issues.

The final reason for continuing the due diligence process is that once a deal has been finalised, the due diligence team will have unrestricted access to information on the target (of course, subject to any regulatory restrictions that may apply, such as, competition law restrictions pending competition clearance). This information is extremely valuable in determining a precise value for a range of items which may have been unclear during the due diligence review, such as determining the fair value of the acquired net assets. Furthermore, the team is able to perform a final complete check of the target before assuming the risk of ownership (Savovic and Pokrajcic, 2013).

There are no prescribed investigations for transactional due diligence. It is up to the discretion of the due diligence team to carry out any final investigations or checks. If there were any uncertainties for any of the investigations carried out during the due diligence review, the due diligence team can address these uncertainties during transactional due diligence. A summary of transactional due diligence is provided in Table 5.6.

Table 5.6 - Component 4: Transactional due diligence

TRANSACTIONAL DUE DILIGENCE	
Objectives	Assist the integration team in their efforts to ensure a smooth transition to the new organisation and minimise the risks
	Assist the integration team in addressing integration issues
	Determining a precise value for items which could not be quantified during the due diligence review
Investigations	Carry out investigations which could not be completed due to a lack of information
	Complete any additional investigations as required.
Information or data	Information directly from the target due to unrestricted access.

5.6. Chapter 5: Conclusion

This chapter presents the design and development of the conceptual framework. Phase 4 through to Phase 6 of CFA is completed in this chapter. The foundation of the conceptual framework is developed from the culmination of findings in Chapter 3 and Chapter 4.

There is no formalised approach to managing and conducting a due diligence process. This conceptual framework provides structure to the due diligence process by addressing two key areas: (1) due diligence process management, and (2) areas of due diligence investigations.

In the next chapter, the conceptual framework is validated through a series of semi-structured interviews. The interviews provide valuable insight into how due diligence is carried out in practice and highlights areas within the conceptual framework that require further investigation and improvement.

Chapter 6 – Framework Validation

<table>
<tr><th colspan="9">Document Framework</th></tr>
<tr><td>CFA</td><td>Map data source</td><td>Categorize data</td><td>Identify concepts</td><td>Deconstruct & categorise concepts</td><td>Integrate concepts</td><td>Synthesis</td><td>Validation</td><td>Rethinking</td></tr>
<tr><td rowspan="3">Part</td><td colspan="3" rowspan="3">PART 1
Problem landscape and literature analysis</td><td colspan="3" rowspan="3">PART 2
Conceptual framework development</td><td colspan="2">PART 3</td></tr>
<tr><td colspan="2">Chapter 6</td></tr>
<tr><td colspan="2">PART 4
Development of a DDM tool</td></tr>
</table>

Chapter 6 addresses the validation of the conceptual framework developed in Chapter 5. The validation process incorporates the responses from several semi-structured interviews. These responses are presented in Section 6.2. The responses are organised according to three categories, namely, (i) validations, (ii) additions, and (iii) changes. The additions and changes are then incorporated into the conceptual framework. The revised framework is then presented. The outcomes of this chapter are used to construct the DDM tool in Chapter 7. The key outcomes for Chapter 6 are summarised in Figure 6.1.

Key Outcomes	Discuss the validation process which was followed
	Discuss the results of the semi-structured interviews
	Present the revised conceptual framework

Figure 6.1 - Key Outcomes – Chapter 6

6.1. Phase 7: Validating the conceptual framework

Phase 7 of Jabareen's (2009) CFA suggests that for the proposed conceptual framework to be acceptable, validation of the conceptual framework should be obtained. Validation can be achieved through feedback from scholars or practitioners, providing consensus on whether the proposed framework is both clear and reasonable.

To address the issue of validation, semi-structured interviews with professionals within the M&A environment were conducted. The nature and format of these interviews are discussed in Section 6.2. The recordings from the interviews were analysed to extract feedback on the different components of the conceptual framework. The feedback was used to revise the conceptual framework. The feedback was categorised based on the revisions made to the conceptual framework. The categories are: (i) validations, (ii) additions, and (iii) changes. The categories and their effect on the revision of the conceptual framework are summarised in Table 6.1.

Table 6.1 - Categories for outcomes in the validation process

Validations	Instances where a respondent confirmed that an aspect of the conceptual framework is applicable and relevant. These aspects of the framework can therefore remain unchanged.
Additions	Instances where a respondent identifies a gap in the conceptual framework and suggests adding an aspect to address the gap.
Changes	Instances where a respondent accepts a certain aspect of the conceptual framework but suggests a different approach to that aspect. These aspects should be changed to reflect the suggested approach.

6.2. Semi-structured interviews

As noted above, the semi-structured interviews have been conducted with professionals who work in the M&A environment and have experience with conducting a due diligence process. Stellenbosch University requires researchers to obtain ethical clearance in the event that interviews are to be conducted. Ethical clearance was provided by REC. To adhere to guidelines stipulated by the REC, the data recordings and identity of the participants have been excluded from this document.

The interview participants were primarily from the legal arena. Five of the participants are qualified attorneys working for leading law firms in South Africa. Two of the participants work within the private equity and investments arena. These two participants are from a financial (chartered accountant) and engineering (industrial engineering) background.

Participants were provided with a copy of the framework as well as a list of questions prior to the interview. The questions given to the participants are included in Addendum C. The questions were used as a guideline in which to steer the interview. Questions were developed to address different aspects of the conceptual framework including the individual components as well as the concepts that make up the conceptual framework. Supplementary questions were posed to the participants based on their perceived knowledge and experience.

6.2.1. Component 1 (due diligence process management) feedback

All feedback relating to component 1, due diligence process management, has been categorised in this section. A unique code is assigned to every entry in Table 6.2. This code identifies which activity in component 1 of the framework is being addressed. For instance, if a piece of feedback suggested an addition to the due diligence team activity of component 1, the code would be A.2.1 where ‘A’ represents the revision (in this case an addition), ‘2’ represents the activity of component 1 (in this case the due diligence team) and ‘1’ represents the activity’s number. A breakdown of the code is shown in Figure 6.2.

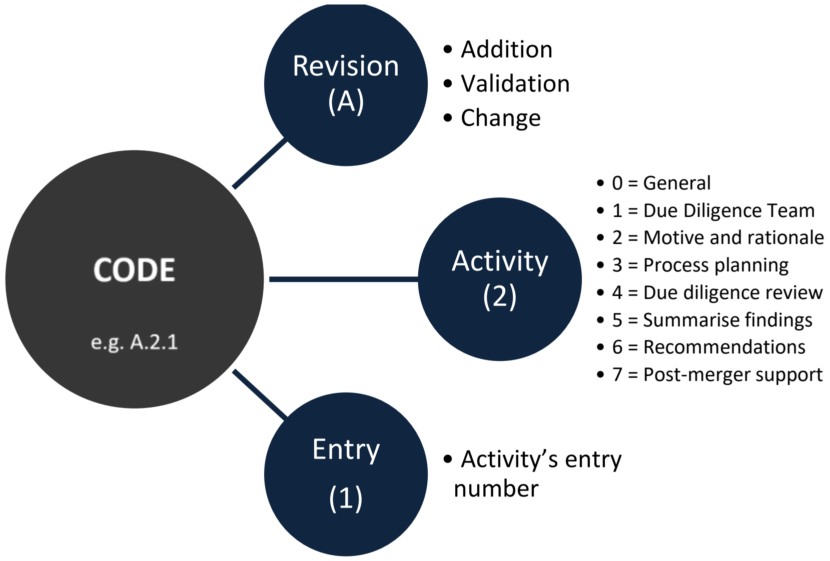


Figure 6.2 - Breakdown of code used for classifying feedback for component 1

In terms of the validations for component 1, the activities included in this component were confirmed to be applicable for due diligence process management. Participants stressed the importance of this component for the due diligence process and confirmed that by applying the principles outlined in component 1, the due diligence process will be better managed. The validations included for this component included the confirmation of several risk factors being common risk factors facing the due diligence process. Further, concepts surrounding constraints and checklists were confirmed by the participants.

There were numerous additions proposed by the participants of the validation process. Additions were proposed for all seven activities of component 1, apart from activity 6: summarising findings. The additions were proposed based on the participants' practical experience with due diligence processes. The most significant additions are for activity 3: process planning. The additions for this activity have been differentiated according to which concepts they address, i.e. constraints, checklists and risk factors.

There were two changes proposed for component 1 of the framework. The first change proposed was that determining the scope of the due diligence process should fall within the process planning activity and should be a standalone concept. The concept initially was not addressed directly in the process planning aspect but rather was addressed by other concepts, such as, constraints, on the basis that these concepts have a direct bearing on determining the scope of a due diligence. By assigning 'determine scope' as a separate concept, the importance of this concept is then highlighted.

The second change that was suggested relates to activity 5 of component 1: summarising findings. Participants indicated that summarising findings can be quite a costly and time-consuming process and this step is often skipped in the due diligence process to address the recommendations directly. The suggestion regarding the change is to add a disclaimer that advises the due diligence team that for deals with very short timelines, it is acceptable to not summarise findings; however, extra care must be taken when providing recommendations to ensure that all major issues are addressed.

Table 6.2 - Feedback for component 1 of the conceptual framework

Category	Code	Description
Validations	V.0.1	Process management is a critical for ensuring a successful completion of the due diligence process.

Validations	V.1.1	It is important to have a strong team leader who can allocate tasks and manage the process properly.
	V.1.2	Organise the team according to each individual's experience and expertise in a particular area.
	V.2.1	Understanding the motive and rationale for the deal is crucial in managing the due diligence process.
	V.3.1	Process planning is an important aspect for managing the due diligence process and can be implemented on every deal.
	V.3.2	Constraint: Budget and time constraints will be exceeded if the due diligence process is not effectively managed.
	V.3.3	Constraint: The largest challenges facing a due diligence process, include, managing cost and time and access to information.
	V.3.4	Constraint: Shortened timelines are a major risk to many deals and place limitations on the scope of the due diligence process.
	V.3.5	Checklist: Checklists are organised according to the different areas of due diligence.
	V.3.6	Checklist: Industry specific issues should be included in the checklist of investigations.
	V.3.7	Risk factor: Information asymmetry is a major risk factor.
	V.6.1	Providing recommendations is an important part of the due diligence process and is therefore appropriate to include in the framework.
	V.6.2	The findings from the due diligence review must influence the purchase price of the target.
	V.7.1	Due diligence should alert the negotiators to any major risks. Further, the results of due diligence must be used to inform negotiators on how the agreement should be drafted.
Additions	A.1.1	There should be a balance between junior and senior team members to manage budget. It costs a lot more to have senior personnel reviewing documents as the cost of their time is higher than that of a junior member of the team.
	A.1.2	It important to strike the right balance between senior and junior team members because a senior member can identify issues or risks that a junior team member may miss. There is a trade-off between cost management and experience.
	A.1.3	Legal counsel may be asked to assist with structuring the deal, risk mitigation and regulatory compliance issues.
	A.2.1	The motive and rationale for the deal must be communicated to all external parties (legal counsel, auditors, experts, etc.) when these parties are briefed.
	A.3.1	Constraints: Costs can be split up into two time-cost categories; pre-review time-costs (setting up the data room, assigning work to the different members of the team, organising and sorting documents) and review time-costs (reading and analysing documents, flagging issues, writing up report).

Additions	A.3.2	Constraint: Time available is a consideration for determining the depth of due diligence.
	A.3.3	Constraints: Request regular fee updates from lawyers and auditors to manage cost constraints.
	A.3.4	Risk factor: Identify and categorise risks according to two criteria: (i) risk that can be mitigated, and (ii) risk that cannot be mitigated. With risk that cannot be mitigated, the acquirer must be comfortable with the risk that they are assuming. Therefore, it would be necessary to obtain indemnities or insurance against the risk.
	A.3.5	Risk factor: hostile target entity
	A.3.6	Risk factor: incomplete due diligence due to people being overworked.
	A.3.7	Risk factor: The risk of information asymmetry can be mitigated by including indemnities in the agreements to account for the missing information.
	A.3.8	Risk factor: important information may be overlooked due to fatigue or incompetence. To mitigate this, ensure that work is distributed fairly to all members of the due diligence team and that team members have the requisite experience to conduct a due diligence investigation.
	A.3.9	Risk factor: There is a risk of relationship breakdown between the acquirer and the target if the due diligence team begins to ask tough questions or if they come across incriminating information. There is the risk of jeopardizing the entire deal should this materialise.
	A.3.10	Risk factor: confidentiality issues may affect the time available for due diligence. In sensitive deals where an announcement can affect the share price of the target, keeping the deal hidden from the public is a priority and the time available for due diligence may be limited.
	A.3.11	Checklist: Start with an extensive due diligence checklist and narrow the checklist based on the investigations that are deemed to be most appropriate and necessary for the deal in question. Add industry-specific issues or investigations to the checklist.
	A.3.12	Checklist: Understand the industry which the target resides in and determine what the key driving factors of the industry are to assist in determining which investigations should be carried out.
	A.4.1	An initial request for information should be sent to the target once the checklist of investigations has been compiled.
	A.4.2	A further request for information is often sent to the target once the initial investigations have been completed. This is to account for any information which has been left out and to address red flags which were noted in the first round of review.
	A.4.3	Information received from the target must be prioritised.
	A.4.4	If there is missing information, and there is no way of obtaining this information then indemnities must be placed within the agreement to account for this missing information.

Additions	A.4.5	If there is critical information which is missing or that the target cannot provide, do not proceed with the deal.
	A.6.1	Provide recommendations on how to structure the deal based on the risks identified.
	A.6.2	Incorporate warranties and representations in the agreement to account for significant issues or risks identified during the due diligence review.
	A.7.1	Ensure that the deal is compliant with regulatory approval.
	A.7.2	Three possible outcomes of a deal that is influenced by the due diligence findings are: (i) proceed, (ii) do not proceed, and (iii) proceed but request adjustments (insert warranties and representations in the deal agreement, get the target or seller to provide insurance or indemnities, reduce the price of the target)
Changes	C.3.1	Determining scope should be a separate concept within process planning.
	C.5.1	A summary of findings may not be applicable to every deal, especially those with very short timelines, in these cases, the due diligence process is undertaken to highlight significant red flags.

6.2.2. Component 2 (preliminary due diligence) and 4 (transactional due diligence) feedback

The feedback for component 2 and 4 was limited. This is primarily because many of the participants have not participated in a preliminary or transactional due diligence. Some of the participants have had exposure to certain aspects of preliminary or transactional due diligence, such as, analysing the financial reports during preliminary due diligence and assisting in the integration efforts during transactional due diligence. The coding system for the feedback considers the revision (validation or addition), the component being addressed (i.e. 2 or 4), and the number of the revision. For example, V.2.1 indicates that the feedback is the first validation for component 2. Table 6.3 presents the feedback for component 2 and 4 of the conceptual framework.

The general feedback for these components touched on the fact that while not every deal will cover preliminary or transactional due diligence, it is appropriate to include these parts of due diligence in the conceptual framework for completeness. These components have an influence on the outcome of the deal, therefore covering them can only stand to benefit the deal. There were no significant revisions that must be made to these components.

Table 6.3 - Feedback for components 2 and 4 of the conceptual framework

Category	Code	Description
Validations	V.2.1	Preliminary due diligence forms an integral part of a comprehensive due diligence process
	V.2.2	A high-level financial analysis of a possible target would take place during preliminary due diligence.
	V.4.1	Transactional due diligence forms an integral part of a comprehensive due diligence process.
Additions	A.2.1	Legal due diligence is not addressed at all in preliminary due diligence.

6.2.3. Component 3 (due diligence review) feedback

The feedback for component 3 of the framework was not as extensive as the feedback for component 1. This is due to the nature of component 3 being in the form of a checklist of investigations that should be covered as part of the due diligence process. The feedback received for component 3 has been summarised Table 6.4. No unique coding system was used for the feedback for this component; however, similar to the treatment of the feedback to Component 1, feedback for Component 3 was categorised in terms of validations, additions and changes.

The general feedback for this component focussed on the fact that the "checklist" is not an exhaustive list of all possible investigations that may need to be completed as part of a due diligence process. There was consensus from participants that the conceptual framework should not present an exhaustive list of investigations. The focus should rather be on key investigations that should be completed for each area of due diligence whilst providing direction on to how to approach the due diligence review. In this way, the conceptual framework can better assist a variety of different deals as it would provide a generalist approach to due diligence whilst also providing guidelines as to how to incorporate more specific investigations.

There was one change which was suggested for component 3 of the conceptual framework. It was recommended that the conceptual framework be amended to include information as to how to carry out the due diligence review, specifically the areas of due diligence that should be covered first, and the investigations that should be prioritised. This change is addressed in the formation of the DDM tool in Chapter 7.

Table 6.4 - Feedback for component 3 of the conceptual framework

Category	Code	Description
Validations	V.1	The framework covers the most key areas of due diligence adequately.
	V.2	The investigations within each area cover crucial aspects a target that should be included in any due diligence review.
Additions	A.1	Divide each area of due diligence according to standard investigations and industry specific investigations.
	A.2	The introduction of artificial intelligence (AI) software to assist in sorting, organising and extracting specific pieces of information from documents.
	A.3	HR: Examine the corporate organisational structure.
	A.4	Legal: Determine if there are special licenses or approvals that the target must have to operate and investigate compliance with these licenses as well as whether the licenses are up to date.
	A.5	Legal best practice: Using colour coded flagging to identify risks and assign a level of risk.
	A.6	Legal best practice: Communication between client (acquirer) and legal counsel.
	A.7	Legal best practice: Adherence to timelines dictated by the client (acquirer).
	A.8	Legal best practice: Prioritisation of the investigations.
Changes	C.1	Provide better direction as to how to carry out the due diligence review.

6.3. Revised framework

This section presents the revised conceptual framework. The conceptual framework has been revised according to the additions and changes suggested in Section 6.2. The revised conceptual framework is presented in the remainder of this section.

6.3.1. Component 1: Due diligence process management

Most of the additions and changes suggested are for component 1. These additions and changes were implemented and the final version of component 1 is reflected in Table 6.5. Several concepts were added to component 1 in line with the revisions suggested by participants. The most significant change is that scope has been allocated as a separate concept within the process planning activity.

Table 6.5 - Component 1 of the revised conceptual framework

DUE DILIGENCE PROCESS MANAGEMENT							
Activity	**Due Diligence Team**	**Motive and rationale**	**Planning**	**Due diligence review**	**Summarising findings**	**Recommendations**	**Post-merger support**
Concepts	Team leadership	Identify primary motive for embarking on the deal	Consider results of preliminary due diligence	Send a request for information directly to the target	Keep an organised paper trail for all investigations	Synergy estimates	Carry out transactional due diligence
	Team composition (Refer to Table 6.6)			Further request for information		Establish a walk-away price	
	Balance between junior and senior team members to manage the budget	Consult senior management / deal team to understand motive and rationale	Constraints (time, budget, personnel, situational factors)	Organise and prioritise data / information received from target	Summary of each investigation	Recommendations for negotiations team	Provide support to the deal process
	Reporting lines			Data repository	Specialist report by experts		Support the negotiation process
	Communication	Identify synergies and risks relating to motive and rationale for the deal	Determine scope of due diligence	Team leader must provide oversight	Create a diligence synthesis document	Integration recommendations report	Support the integration process
	Size of team influenced by constraints		Risk factors (Refer to Table 6.8)	Co-ordination between different investigations	Create executive summaries	Provide recommendations on how to structure the deal based on the risks identified	Reflection document
	External experts / Professional services	Communicate the motive and rationale to all external parties assisting the due diligence process	Checklist and timelines	Carry out investigations according to the checklist		Incorporate warranties and representations to account for significant risks	Ensure that the deal is compliant with regulatory approval

There were additions in terms of the composition of the due diligence team. The revisions have been included in Table 6.6.

Table 6.6 - Revised composition of the due diligence team

Role	Internal / External	Description
Industry expert	Both	This role should be fulfilled by someone who has expert knowledge on the target industry to direct investigations and identify industry-specific risks. This role may be fulfilled by someone from the acquiring organisation if the acquirer is in the same line of business as the target.
Representative from each functional area	Internal	Representatives from key functional areas within the acquiring firm such as finance, legal, HR, marketing, operations etc. should be included to assist in investigations in the different areas of due diligence.
Legal counsel	Both	Legal counsel is required for every due diligence investigation to ensure that due diligence carried out is compliant with laws and regulations in place. Legal counsel also provides guidance on anti-trust/competition regulation issues. Further, legal counsel assists in legal and tax due diligence areas where necessary. Legal counsel may be asked to assist with structuring the deal, risk mitigation and regulatory compliance issues.
Auditor	External	The role of the auditor is to assist in the valuation of the target in addition to assisting in the financial and tax due diligence areas.
Representative from target company	External	The target company should send a representative to act as a liaison between the target and acquirer. This representative is responsible for ensuring access to the target's information by the rest of the due diligence team.
Representative from negotiations team	Internal	The role of the representative from the negotiations team is continuously communicate key findings by the due diligence team to the negotiations team to inform the discussions taking place by this team
Representative from integration team	Internal	The role of the integration team representative is to share information uncovered during due diligence with the integration team to inform their planning processes.
External advisors	External	External advisors should be brought on where there is a lack of expertise or knowledge on specific areas of due diligence, for example operations experts or strategic due diligence experts.
Junior team members	Both	There should be a balance between junior and senior team members to manage budget. It costs a lot more to have senior personnel reviewing documents as the cost of their time is higher than that of a junior member of the team. It important to strike the right balance between senior and junior team members because a senior member can identify issues or risks which a junior team member may miss. There is a trade-off between costs management and experience.

For activity 3 (planning) of due diligence process management, there were a number of additions for the various concepts. These have been indicated as focus areas for the concepts and are presented in Table 6.7.

Table 6.7 - Concepts for activity 3 (planning) of due diligence process management

Concepts		Focus area
Results of preliminary due diligence		• Analyse the results of the preliminary due diligence • Use potential synergies identified to focus the due diligence review on important areas. • Place focus on areas where significant issues were uncovered to conduct deeper investigations. • List all risks uncovered during this review to drive planning processes and develop strategies to mitigate the risks.
Constraints	Time	• Time available is a consideration for determining the depth of due diligence. • Consider the timeframe allocated when determining the scope of the investigations. • Determine the time it will take to complete each investigation. • Prioritise the completion of the most important investigations.
	Budget	• Consider how the budget will be allocated to different investigations to minimise the risk of an overspend. • Costs to consider include: cost of carrying out investigations, due diligence team costs, costs of hiring external advisors, and cost of procuring data or information for the investigations. • Request regular fee updates from external advisors or parties to manage cost constraints. • Costs can be split up into two time-cost categories; pre-review time-costs (setting up the data room, assigning work to the different members of the team, organising and sorting documents) and review time-costs (reading and analysing documents, flagging issues, writing up report).
	Personnel	• Consider human resources constraints when setting up the due diligence team. • Determine if there are qualified individuals within the acquirer who are able to lead investigations in key functional areas. • Determine if external advisors are required to fill gaps in the due diligence team.
	Situational Factors	• Consider and list all constraints relating to the type and nature of the deal. • Determine if due diligence will need to be fast-tracked due to the sensitive nature of the deal. • Determine if there are legal or other constraints in terms of obtaining information on the target. • Analyse any situational constraints on an individual basis and develop mitigation strategies to deal with these constraints.
Determine the scope of due diligence		• Consider all constraints when determining the scope of investigations. • Determine if the scope of investigations has to be narrowed to account for time or situational constraints. • Consider the requirements of the deal when determining the scope, i.e. for a deal with a large value attached to it, the scope of the investigations should be expanded to ensure an in-depth due diligence process takes place.

Risk factors		• Identify any and all risk factors associated with the deal. • Plan and mitigate for these risk factors within the due diligence plan. • Share these risk factors with the whole due diligence team. • Identify and categorise risks according to two criteria: (i) risk that can be mitigated, and (ii) risk that cannot be mitigated. With risk that cannot be mitigated, the acquirer must be comfortable with the risk that they are assuming. Therefore, it would be necessary to obtain indemnities or insurance against the risk. • See Table 6.8 for a list of common risk factors.
Checklist and timelines	Formulate checklist of investigations	• Identify the areas of due diligence to be covered. • Select the areas of due diligence according to the nature of the deal, the industry within which the target resides and the motive and rationale behind the deal. • Start with an extensive due diligence checklist and narrow the checklist based on the investigations that are deemed to be most appropriate and necessary for the deal in question. • Focus on the investigations which matter most; identify the investigations which drive the overall value of the deal and direct a significant amount of resources towards these investigations. However, take note to not narrow the focus excessively as important information may be overlooked. • Consider the potential synergies when formulating the checklist of investigations. Conduct investigations to investigate these potential synergies to establish whether they can be realised • Understand the industry which the target resides in and determine what the key driving factors of the industry are to assist in determining which investigations should be carried out.
	Indicate constraints on the checklist	• Allocate individuals from the due diligence team to each investigation on the checklist. • Indicate the time available for each investigation. • Indicate the budget allocated for each investigation. • Develop an overall timeline for the investigations and incorporate buffers to account for any potential overruns.

There were also several additions which were recommended for the common risk factors. The revised list of common risk factors is show in Table 6.8.

Table 6.8 - Revised list of common risk factors

Risk Factor	Level	Description	References
Rushed due diligence	High	Due diligence is often hurried as excitement for the deal rises. The due diligence process is then carried out inadequately which may lead to overestimations of revenue enhancements and cost savings and underestimations of the resource requirements and difficulties involved in integrating businesses.	(Marks and Mirvis, 2015)
Ignoring organisational, HR and cultural issues	High	Ignoring organisational culture differences, HR or cultural issues may have high long-term hidden costs. These people or cultural issues either never surface during the due diligence or the acquirer underestimates their importance and fails to recognise them as warning signs of business problems that could sap value from the deal and even threaten the success of the transaction.	(Horwitz *et al.*, 2002) (Latukha and Panibratov, 2013) (Lovallo *et al.*, 2008)
Limiting the due diligence process	High	Limiting the DD process to an evaluation of financial statement, management, and physical assets leaves the acquisition process, and more importantly the acquirer, with serious vulnerabilities. It is essential that DD go beyond the obvious analyses and include a detailed self-analysis and thorough review of the markets and competitive environment of prospective acquisitions.	(Lebedow, 1999) (Harvey and Lusch, 1995)
Information asymmetry	High	A significant risk is a lack of information or withheld access to information due to confidentiality or unwillingness of the target to voluntarily share information. Often the due diligence process must be kept quiet with only a limited number of people involved therefore limiting the scope and depth of due diligence. This risk can be mitigated by including indemnities in the agreements to account for the missing information.	(Patrick Lemieux and Banks, 2007) Semi-structured interview feedback
Shortened timescales	High	Many deals have short timeframes therefore putting pressure on the due diligence team to conduct their investigations as quickly as possible. There is a risk that the investigations will not be as comprehensive due to the tight schedule resulting in certain aspects being overlooked which can lead to problems further in the deal-making process.	(GrantThornton, 2004)
Hostile target entity	High	In cases where the deal is a hostile takeover or where the target does not welcome the deal, the target may not be willing to cooperate with the acquirer therefore making the due diligence process very difficult.	Semi-structured interview feedback
Confidentiality issues affecting the timeline	Medium	Confidentiality issues may affect the time available for due diligence. In sensitive deals where an announcement can affect the share price of the target, keeping the deal hidden from the public is a priority and the time available for due diligence may be limited.	Semi-structured interview feedback
Relationship breakdown	Medium	There is a risk of relationship breakdown between the acquirer and target if the due diligence team begins to ask tough questions or if they come across incriminating information. There is the risk of	Semi-structured interview feedback

		jeopardizing the entire deal should this materialise. One should therefore go about this with sensitivity.	
Overworked personnel	Medium	Due to the short timelines on many due diligence processes, fatigue can often set in for personnel working on the due diligence. This can lead to an incomplete due diligence or there may be the risk that certain information is overlooked. To mitigate this, ensure that work is distributed fairly to all members of the due diligence team and that team members have the requisite experience to conduct a due diligence investigation.	Semi-structured interview feedback
Unsuitable target	Medium	A common cause of M&A failure is due to the incorrect selection of a target. Due diligence investigations can mitigate this risk if the investigation into a potential target is thorough.	(Song *et al.*, 2009)
Entrenched business processes	Medium	Companies that acquire targets from firms in maturing industries must "untangle" the target's business processes from its parent company; in most cases, the pieces being sold have entrenched processes and cultures that are difficult to integrate into the buyer's organisation.	(Perry and Herd, 2004)
Overestimation of synergies	Medium	The promise of synergies is often one of the leading motivations for embarking on an M&A. This emphasis on synergies does mean that if synergies are overestimated, there is a significant risk that the deal will not produce the anticipated results.	(Garzella and Fiorentino, 2013)
Too much due diligence	Medium	It is possible for a deal to become paralyzed by the amount of due diligence being conducted on the target. Although it is true that the more detailed the due diligence, the greater the degree of certainty for the deal however there is a point where the cost of obtaining information outweighs the benefit.	(GrantThornton, 2004)
Overlap of the different lines of enquiry	Medium	At some stage in the due diligence process, the various lines of enquiry will overlap and impact the findings of one another. The people leading the different enquiries should communicate regularly to establish a basis of understanding of where the due diligence process is at.	(GrantThornton, 2004)

The next section presents the revision for component 2 (preliminary due diligence) of the conceptual framework.

6.3.2. Component 2: Preliminary due diligence

The revisions for component 2 of the conceptual framework were minor. These revisions have been included in Table 6.9.

Table 6.9 - Component 2 of the revised conceptual framework

PRELIMINARY DUE DILIGENCE	
Objectives	Conduct a formal evaluation of the potential targets to assist in selecting the most appropriate target.
Investigations	High-level financial evaluation of all potential targets
	Identification of potential synergies with the various targets
	Identification of any significant risks
Information or data	Publicly available financial statements
	Publicly available information on the potential targets (e.g. articles, company website, web-searches, reports)

The next section presents the revisions to the conceptual framework for component 3 (due diligence review).

6.3.3. Component 3: Due diligence review

The additions were implemented in line with the feedback in Section 6.2.3. The revised component 3 is included is presented in Table 6.10. The only change suggested for component 3 is that this component should provide better direction as to how to carry out the due diligence review. This change has not been implemented in the conceptual framework because it is addressed comprehensively in the DDM tool (refer to Section 7.2.2.2).

Table 6.10 - Component 3 of the revised conceptual framework

FINANCIAL DUE DILIGENCE
Investigations
• Ratio analysis and trend analysis • Analysis of right-hand side of the balance sheet • Asset structure analysis • Statement of cash flows analysis • Share price analysis • Assessment of sales, net income and wage expense • Income statement and balance sheet comparison with industry standards and peers • Assessment of cash management practices • Evaluation of accounts receivable • Assessment of internal management reporting system • Evaluation of firm's abilities to collect overdue receivables • Review commissions, selling expenses, general and administrative expenses • Examine extraordinary and nonrecurring expenses
Best Practices
• Obtain an audit opinion from an external auditor
Information/Data/Tools
• Monthly, quarterly and annual financial statements (at least 3 years) • Financial results by division/department • Current year projected financial statements

• List of bank accounts and related balances • List of total receivables balances due from customers, officers, employees and others • List of accounts payable • List of suppliers with approximate annual amounts purchased • List of contingent liabilities and their amounts • List of contracts and agreements with any indication of price renegotiation or redetermination
LEGAL DUE DILIGENCE
Investigations
• Identify outstanding legal matters which must be dealt with in the M&A agreement • Investigate the accuracy and validity of the warranties and representations of the target • Assess the ownership situation of all assets owned by the target • Examine all past and pending litigation at the target • Assessment of target's compliance with all government regulation and legislation • Determine if there are special licenses or approvals that the target must have to operate and investigate compliance with these licenses as well as whether the licenses are up to date.
Best Practices
• Communication between client (acquirer) and legal counsel • Adherence to timelines dictated by the client (acquirer). • Prioritisation of the investigations • Using colour coded flagging to identify risks and assign a level of risk. • The use of AI software to assist in sorting, organising and extracting specific pieces of information from documents.
Information/Data/Tools
• List of charges pending against the target • List of ongoing disputes with suppliers, competitors and customers • List of decrees, orders or judgements of courts or governmental agencies • Copies of pleading or correspondence for pending or previous lawsuits involving the target • Copies of material contracts, sales and purchase agreements • Copies of titles, deeds, patents, proofs of purchase and any other ownership documents
TAX DUE DILIGENCE
Investigations
• Reconcile tax returns to financial statements • Estimate net operating loss carryovers and investment tax credits • Identify opportunities for tax savings and synergies • Determine if the target has any unpaid taxes • Investigate any potential tax fraud
Best Practices
• Obtain an opinion from the external auditor on the target's conformity to past and current tax obligations
Information/Data/Tools
• All tax returns for previous five years • List of all taxes for which target is liable for • Date and result of latest audit • Record of payroll tax deposits and compliance with withholding requirements
STRATEGIC DUE DILIGENCE
Investigations
• Investigate the commercial attractiveness of the deal • Determine whether the targeted value of the deal can be realised
Information/Data/Tools
• Transcripts of investor meetings

- Shareholder presentations, webcasts and other communications

ENVIRONMENTAL DUE DILIGENCE

Investigations

- Assess the environmental management system (EMS) of the target
- Investigate compliance with environmental laws and regulations
- Identify exposure to environmental liabilities and estimate costs to remediate
- Assess the target's compatibility with the acquirer's environmental strategy
- Assess all commercial and residential real estate held by the target

Information/Data/Tools

- Six factors of EMS assessment
- List of previous and pending environmental claims and litigation
- List of penalties for noncompliance with environmental regulations
- Data pertaining to the storage, transportation and disposal of hazardous and non-hazardous materials
- List of operating permits, compliance files and registrations
- Copies of pollution control capital expenditure reports
- Previous environmental assessments, technical reports and studies
- Disclosures to regulatory agencies regarding environmental liabilities

MARKETING DUE DILIGENCE

Investigations

- Evaluate cost effectiveness of sales promotion programs
- Assess the target's brand strength and brand portfolio
- Analyse qualitative sources of intangible asset information by using marketing investment ratios, marketing productivity rations and marketing operations efficiency ratios
- Analyse the strength and effectiveness of the marketing and sales division of the target
- Evaluate compatibility of the target's sales and marketing policies with the acquirer's
- Identify potential revenue enhancement opportunities and synergies relating to marketing and sales
- Determine exposure to service warranty claims

Best Practices

- Create a brand strategy which supports the acquirer's overall objective and deals with any brand-specific issues

Information/Data/Tools

- Recent advertising budget, including placement and timing of the advertisements
- Current brochures and sales material
- Articles and marketing studies relating to the target
- Past and present press releases from target
- Cash flow attributed to the brand

OPERATIONAL DUE DILIGENCE

Investigations

- Identify all potential operational synergies and evaluate what it will take to achieve these synergies
- Analyse the process flow of operations
- Examine the quality of operations based on external measures and internal measures
- Conduct a visual inspection of operations by a physical tour
- Inspect operations assets to determine wear, maintenance and/or obsolescence
- Inspect all inventory to determine obsolescence or damage
- Analyse all subcontracted operations and determine appropriateness
- Interview suppliers to determine issues
- Calculate production break-even volume
- Assess adequacy of controls over purchasing activities
- Assess adequacy of distribution and logistical policies

Best Practices

• Use an industry specialist to help identify new sources of value or synergies
Information/Data/Tools
• Process architecture; inputs, outputs, flow units, network of activities and buffers, resources required and information structure • Product/Service attributes necessary to satisfy customers; cost, response time, variety and quality • Process attributes necessary to deliver products/services; cost, flow time, flexibility and quality • Data on utilization rates of manufacturing or service operations • List of order backlogs • List of assets in raw materials, work-in-process and finished goods inventories • Copy of quality control procedures • Records on defective products • Records on scrap and unshipped or rejected products • Records on subcontracted labour, parts or products • List of suppliers with copies of supplier contracts and commitments • Terms of payment to suppliers and/or vendor financing • Historical percentage of sales represented by purchased goods or services • Use of commodity agreements or other risk management devices to hedge price uncertainties in supply • Copies of distribution or logistical contracts • Records of labour strikes and grievances
HR DUE DILIGENCE
Investigations
• Assess adequacy of employee benefit and incentive plans • Review general labour pool in the target's geographical markets • Estimate extent of over- or underfunding of health and retirement plans for both active employees and retirees • Evaluate working conditions, attrition statistics and reason for attrition • Assess medical problems and sick leave frequency • Conduct interviews with target's managers for possible retention post-deal • Investigate outstanding employees' compensation claims, unfair labour practice charges, civil rights claim and any other labour disputes • Examine the corporate organisational structure
Best Practices
• Obtain external opinion regarding compliance of the target with government regulations • Obtain external opinions on qualification of benefit plans and the adequacy of coverage
Information/Data/Tools
• Number of employees with details of job descriptions • Wages, commissions, benefits and prerequisites for employee groups • Organisation chart • Employee performance reviews • Biographical information on managers • Information on employee incentive plans, retirement and health benefits as well as annual cost of premiums and percentage of premiums paid by employees • List of unfilled positions • Union contracts and material employment contracts • History of compensation disputes and their outcomes • Description of medical, vacation, transportation, tuition assistance and other programs • Copy of all audit or actuarial reports concerning pension and retirement plans for recent years • Description of stock options and phantom stock option incentive programs • A list of promises of employee benefits not mentioned elsewhere • Copies of written inquiries or complaint • Fidelity bond and fiduciary liability insurance policies • Administrative service contracts for all employee benefit plans

• A list of vacation plans or policies and employee fringe benefits • Schedule of compensation paid to officers, directors and key employees showing salary, bonuses and noncash compensation • List of employee agreements and unwritten understandings • Key employee losses to other firms • Summary of labour disputes • List of negotiations with any group representing employees • Employment and consulting agreements, loan commitments and documents relating to other transactions with officers, directors, key employees, former employees and related parties • Non-compete agreements with current and former employees
CULTURAL DUE DILIGENCE
Investigations
• Analyse communication style both internally and externally • Examine decision making (top down vs. decentralized, unilateral vs. team-based) • Evaluate culture of innovation (reliance on traditional approaches vs. experimentation with new methods) • Explore extent of solutions sharing (extent of transfer of best practices within the firm) • Investigate training practices (how much is required; focussed on functional silos vs. cross-firm) • Explore work orientation (emphasis on processes and roles vs. getting results)
Best Practices
• Highlight cultural gaps between the two organisations
Information/Data/Tools
• Target's corporate statements on its mission, vision and values • Copies of departmental goals and objectives • Accounts about internal conflicts and how they were resolved • Accounts about firm traditions and celebrations • Observations on communication etiquette • Observations of in-person interactions between employees and between employees and customers • Observations of bulletin boards, cafeteria and reception areas • Copy of organisational chart • Copy of corporate capital expenditure procedures • Copy of corporate training offerings and attendance rates • Copy of agenda of recent senior management meetings with details on the structure and content • Biographical sketches on managers and supervisors • Accounts of conflict or harmony relating to diversity in the workplace • Records of charitable and political contributions of cash or in-kind resources • Copy of written code of conduct • Using employee surveys as a cultural assessment tool
MARKET DUE DILIGENCE
Investigations
• Determine the size of the market and calculate a three- to five-year growth outlook for each market segment • Determine the product requirements, features and specifications for each market segment • Describe each market segment's predominant buying influence • Define the breadth of the product line which is necessary to ensure success • Characterize the competitive situation within each market segment • Determine the profitability and ownership structure of the target's competitors within the market • Analyse current and expected pricing policies for product lines • Assess trends in sales cancellations, costs, variances from forecasts, customer complaints, lost customers and discount patterns
Information/Data/Tools

- Market size and growth prospects for the market
- Target's market share
- Information on the target's competition within the market
- Major customer relationships with percentage of overall business
- Channels of distribution for target and peers and their relative importance
- Actual sales and forecasts for recent years, by department or product lines
- Forecast of sales for the future
- History of sales cancellations and their reasons
- Sales and expenses per salesperson
- Information on customer complaints and lost customers
- Policy on product or service warranties and outstanding exposure
- History of claims under warranties
- Interviews with target's customers, distribution channels and competition

TECHNOLOGY DUE DILIGENCE

Investigations

- Assess the ability of the IT department to fulfil the needs of the target firm
- Estimate the cost of bringing all departments up to the current level of technology which is available
- Assess the compatibility of IT systems between the target and acquirer
- Evaluate the effectiveness of the target's IT department
- Create a plan for the post-merger integration of the target's IT with the acquirer's IT
- Identify and assess the target's agreements in relation to IT hardware, software and maintenance

Information/Data/Tools

- List of current IT hardware and software along with dates of purchase and integration
- List of current IT projects along with workflows and status reports
- List of unfilled IT requests
- Operating budget for the IT department
- Hardware and software agreements with third parties with log of all maintenance done

IP DUE DILIGENCE

Investigations

- Confirm that the target owns all IP rights
- Review all property files dealing with patents and trademarks, trade secrets, copyrights, license agreements, confidentiality agreements, joint venture agreements and confirmation of payment of maintenance fees and taxes where applicable
- Check for defects in property or issues in ownership whilst also searching for strengths and weaknesses of the IP
- Investigate if there have been any charges of infringement made wither by the target or by an external party
- Assess the economic significance and impact of comparable or new technology, copyrights, etc. if deployed by competitors
- Profile the target's emerging IP
- Identify potential benefits and costs of the transfer of IP and intangible assets from the target to the acquirer

Information/Data/Tools

- List of all patents granted, pending or to be pursued by the target
- List of all copyrights, trademarks and service marks claimed by the target
- List of all disputes over IP or infringement claims
- List of comparable IPs held by competitors
- Policies and procedures for documenting and protecting inventions or creations
- History of royalties or indemnifications
- Contracts regarding the use or protection of intellectual and intangible assets

R&D DUE DILIGENCE

Investigations
• Investigate the adequacy of management of R&D program • Assess the effectiveness of R&D efforts • Assess the capabilities of the R&D department
Information/Data/Tools
• Description and rationale for R&D projects in process currently • Forecast of completion dates and costs for ongoing R&D projects • Historical cost of R&D projects and success rate

The next section presents the revisions for component 4 (transactional due diligence) of the conceptual framework.

6.3.4. Component 4: Transactional due diligence

The revisions for component 4 of the conceptual framework were minor. These revisions have been included in Table 6.11.

Table 6.11 - Component 4 of the revised conceptual framework

TRANSACTIONAL DUE DILIGENCE	
Objectives	Assist the integration team in their efforts to ensure a smooth transition to the new organisation and minimise the risks
	Assist the integration team in addressing integration issues
	Determining a precise value for items which could not be quantified during the due diligence review
Investigations	Carry out investigations which could not be completed due to a lack of information
	Complete any additional investigations as required.
Information or data	Information directly from the target entity due to unrestricted access.

6.4. Chapter 6: Conclusion

This chapter presents the process that was undertaken to validate the conceptual framework. It presents the results from the semi-structured interviews. The feedback from the semi-structured interviews was presented in terms of validations, additions and changes for each of the components of the conceptual framework.

The completion of the semi-structured interviews assisted in developing an understanding of a practical due diligence process. New concepts were introduced in the form of additions suggested for the conceptual framework.

The additions and changes suggested by the participants of the semi-structured interviews were incorporated into the conceptual framework. The revised conceptual framework is presented in Section 6.3.

The revised conceptual framework is utilised in the next chapter to develop the DDM tool.

Chapter 7 – Due Diligence Management Tool

Document Framework								
CFA	**Map data source**	**Categorize data**	**Identify concepts**	**Deconstruct & categorise concepts**	**Integrate concepts**	**Synthesis**	**Validation**	**Rethinking**
Part	**PART 1** Problem landscape and literature analysis			**PART 2** Conceptual framework development			**PART 3** Framework validation and revision **PART 4** Chapter 7	

This chapter presents the design and development of a DDM tool. The DDM tool is developed from the validated conceptual framework, as discussed in Chapter 6, as well as the outcomes from Chapter 3 and Chapter 4. It is evaluated through the application of a case study involving a M&A transaction in the engineering industry in South Africa. The key outcomes of this chapter are summarised in Figure 7.1.

Key Outcomes	
	Present the design of the DDM tool
	Provide an overview of the DDM tool
	Present the case study
	Apply the DDM tool to a case study

Figure 7.1 - Key Outcomes – Chapter 7

7.1. Design of the DDM tool

This section provides insight into the criteria that were used in the design of the DDM tool. These criteria have been derived from the findings in literature as well as the feedback from the framework validation process. The criteria along with the component that satisfies the criterion is presented in Table 7.1 below.

Table 7.1 - Criteria used in the design of the DDM tool

No.	Criterion	Component which addresses criterion
1.	To provide a general approach to M&A due diligence.	Component 1
2.	To consider constraints so that a due diligence process may be completed on time and according to budget.	Component 1
3.	To apply project management principles to manage the due diligence process.	Component 1
4.	To allow for the tool to be adaptable to any due diligence process, regardless of the type of due diligence process (i.e., legal or environmental etc.), industry focus or size of the transaction.	All

5.	To provide a general idea of the areas that should be investigated in a due diligence.	Component 2
6.	To provide direction on how to carry out a due diligence review.	Component 2
7.	To allow for scalability – due diligence is a dynamic process therefore the DDM tool must be expandable in nature, allowing for future additions as new developments come about in the M&A field.	All

The foundation of the DDM is the conceptual framework which has been developed. The validated conceptual framework already addresses most of the criteria listed above therefore it is appropriate to use as the basis for the DDM tool. More specifically:

- Component 1 of the conceptual framework addresses the first three criteria listed. During the validation process this component was confirmed to be applicable to any due diligence process, thereby satisfying criterion 1. This component also considers all constraints facing the due diligence process by providing a list of the common constraints and how to work around these constraints. Therefore, criterion 2 is fulfilled. Further, the component is built for managing the due diligence process thereby addressing criterion 3.
- Criteria 1 and 4 are addressed throughout the conceptual framework, as a generalist approach was employed during the development of the conceptual framework. The conceptual framework and by extension the DDM tool are therefore adaptable to any due diligence process.
- Criterion 5 is addressed by component 2 of the conceptual framework. Component 2 provides a breakdown of the different areas of due diligence with the most important investigations listed for each area.
- Criterion 6 is addressed in the DDM tool, whereby the integrated due diligence approach is adopted to provide a structure for the purposes of carrying out the due diligence review (see Section 7.2.2.2).

The design of the DDM tool subsequently incorporates all the components of the conceptual framework. Components 3 and 4 of the conceptual framework are included in the tool for completeness sake although these components only play a minor role within the greater due diligence process.

The DDM tool is broken up into two key areas: (i) due diligence process management and (ii) due diligence investigations. Process management consists of component 1, whilst due diligence investigations comprises of components 2, 3 and 4.

As previously noted, the due diligence process has three steps, namely: (i) preliminary due diligence, (ii) due diligence review and (iii) transactional due diligence. This is in line with the conceptual framework, which bases the three components on the three-step model of due diligence (see Section 5.1.2).

7.2. The due diligence management tool

The assembled DDM tool is presented in this section. The tool is made up of two components: (1) due diligence process management and (2) due diligence investigations. The second component, due diligence investigations, is made up of three phases: (i) preliminary due diligence, (ii) due diligence review, and (iii) transactional due diligence

The two components are distinct and are differentiated in terms of their application to the overall due diligence process. The first component provides oversight and guidance on how to manage the due diligence process with regard to specific aspects of the due diligence process. The second component provides guidance on how to conduct the due diligence investigations by laying out a specific order of investigations (in terms of the three steps) as well as the audits which should be completed (with regard to step 2 of the tool). The two components are presented and discussed in remainder of this section.

7.2.1. Component 1: Due diligence process management

Due diligence process management provides guidance on how to initiate and carry out a thorough due diligence process. This component consists of seven steps which should be followed to effectively manage all aspects of a due diligence process. The seven steps are presented in Figure 7.2. This part of the DDM tool retains much of the content from component 1 of the conceptual framework - there have been minor revisions to ensure that it is appropriate to be used as part of the DDM tool.

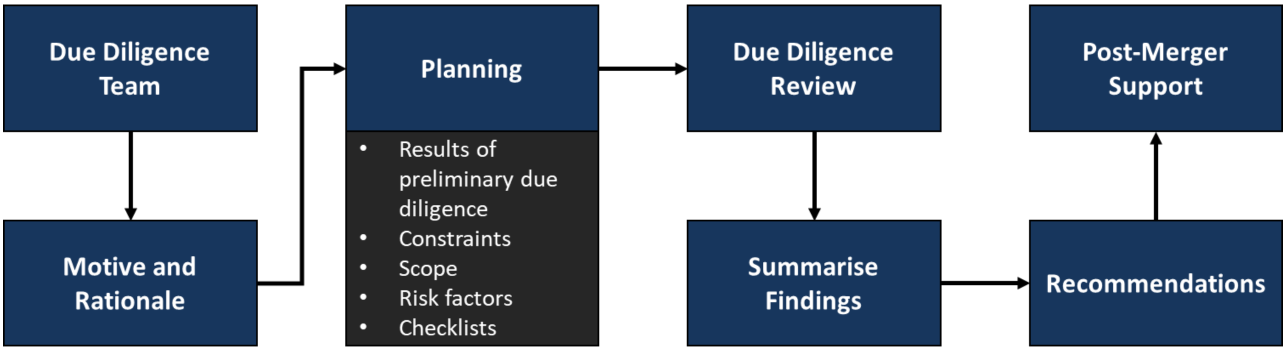


Figure 7.2 - Steps in due diligence process management

The remainder of this section will present each step of this component of the DDM tool. Table 7.2 depicts component 1 of the tool. The component follows the logical order depicted in Figure 7.2. and covers each step and subsequent activity in due diligence process management. Where more detail is required for an activity, there are areas of focus which should be considered. For each activity and focus area (where applicable), there are leading directives or questions that the due diligence team should consider in order to complete the due diligence process efficiently and comprehensively.

Table 7.2 - Component 1: Due diligence process management

Step	Activities	Focus Areas	Leading Directives/Questions
Due Diligence Team	**Team composition**	Team leader	1. Does the team leader have the necessary expertise to lead the due diligence team? 2. Can a member of senior management lead the due diligence team? If not, is it possible to find an appropriate external advisor/expert to lead the team?
		Industry experts	1. Is there an individual within the acquiring company who has the requisite expertise within the target's industry? If not, it is necessary to hire an external advisor who has the requisite knowledge of the target's industry. 2. Is this individual able to identify relevant investigations which are necessary for the target industry? 3. Is this individual able to identify industry-specific risks?
		Representatives from each functional area	1. Are there individuals from each key functional area (financial, HR, legal, marketing, operations, etc.)? 2. Are these individuals able to assist with investigations in their respective functional areas?
		Legal counsel	1. Is there an individual from the acquirer who has the requisite legal knowledge to carry out the relevant investigations? If not, it is necessary to hire legal counsel. 2. Is legal counsel able to work with the regulatory bodies of the jurisdiction to get approval for the deal? 3. Is legal counsel able to assist with structuring the deal? 4. Is legal counsel able to assist with risk mitigation and regulatory compliance issues?
		Financial auditor	1. Has a qualified financial auditor been appointed to conduct a valuation of the target? 2. Is this financial auditor able to assist with financial and tax investigations?
		Target representative	1. Is there a representative from the target organisation who is able to act as a liaison between the two sides? 2. Is the representative able to provide access to the relevant information required from the target to complete the due diligence investigations?
		Negotiations team representative	1. Is there a representative from the negotiations team present on the due diligence team? 2. Is this individual able to effectively communicate findings from the investigations to help inform the negotiations?
		Integration team representative	1. Is there a representative from the integration team present on the due diligence team? 2. Is this individual able to effectively communicate findings from the investigations to assist the integration team with planning?
		External advisors	1. Is there a lack of expertise or knowledge on any areas of the due diligence investigations which require the assistance of external advisors or experts?

Due Diligence Team		Junior team members	1. Does the amount of work involved in the investigations necessitate extra team members to complete the investigations effectively?
	Communication	Reporting lines and co-ordination	1. Are there clear reporting lines within the due diligence team? 2. Is there consensus on how findings should be raised? 3. Is the team leader able to co-ordinate the due diligence team and investigations?
		Communication channels	1. Is there clarity on how findings from the investigations are communicated to the deal team? 2. Communication with the deal team should be limited to only senior members of the due diligence team to ensure that the deal team is not overburdened with information.
	Constraints	Budget	1. Has there been a budget set for the due diligence team? 2. Does the composition of the due diligence team fall within the requirements of the budget? 3. Is there a balance between junior and senior team members in order to manage the budget? 4. Have the cost of external advisors and experts been accounted for within the budget?
		Experience	1. Does the due diligence team contain the requisite experience to carry out all investigations? 2. Is there a correct balance between senior and junior team members to ensure all investigations are being carried out thoroughly?
		Time	1. Is the size of the due diligence team adequate to complete all investigations within the required time? 2. Is it possible to decrease the size of the team, without compromising on experience, if time permits?
Motive and rationale	**Identify and understand primary motivation/rationale**		1. Identify the leading motivation for embarking on the deal. 2. Consult with senior management to understand the strategic objectives for which the deal is trying to achieve. 3. Identify appropriate investigations to complete that can assist in determining whether the deal will fulfil the motivation for the deal.
	Identify synergies and risks		1. Use the motivation and rationale to identify potential synergies to look out for when completing the investigations. 2. Identify and uncover any risks that could possibly affect the motivation for embarking on the deal. 3. Look out for common risks associated with certain rationales.
	Communicate the motive and rationale		1. Communicate the motive and rationale for the deal to all members of the due diligence team to ensure that all investigations are carried out with the motive and rationale in mind. 2. Communicate the motive and rationale to external parties assisting with the due diligence.

Planning	Results of preliminary due diligence		1. Analyse the results of the preliminary due diligence 2. Use potential synergies identified to focus the due diligence review on important areas. 3. Place focus on areas where significant issues were uncovered to conduct deeper investigations. 4. List all risks uncovered during this review to drive planning processes and develop strategies to mitigate the risks.
	Constraints	Time	1. Confirm with the deal team how much time has been allocated to due diligence. 2. Consider the time it will take to complete each investigation. 3. Prioritise the completion of the most important investigations. 4. Consider the time allocated when determining the scope of due diligence.
		Budget	1. Due diligence investigations can be resource intensive and therefore very costly. 2. Confirm with the deal team what the budget allocated for due diligence is. 3. Discuss as a team how the budget will be allocated to different investigations to minimise the risk of an overspend. 4. Costs to consider include: cost of carrying out investigations, due diligence team costs, costs of hiring external advisors. 5. Request regular fee updates from external advisors or parties to keep track of costs. 6. Consider any cost involved in procuring data or information for the investigations. 7. Split up the costs into two time-cost categories: a. Pre-review time-costs: setting up the data room, assigning work to the different members of the team, organising and sorting documents. b. Review time-costs: reading and analysing documents, flagging issues, writing reports and summaries.
		Personnel	1. Consider the constraints of human resources when setting up the due diligence team. 2. Are there qualified individuals within the acquiring company who are able to lead investigations in key areas? 3. Do external advisors need to be called upon to fill in gaps on the due diligence team?
		Situational Factors	1. Consider constraints relating to the type and nature of the deal. 2. Does due diligence need to be fast-tracked due to the sensitive nature of the deal? 3. Are there legal constraints in terms of accessing information relating to the target? 4. Analyse situational factors on an individual basis and plan accordingly to mitigate for these constraints.
	Determine the scope of due diligence		1. Determine the scope of due diligence before commencing with any investigations. 2. Consider all constraints when determining the scope. 3. What are the time constraints facing due diligence and will investigations have to be restricted in any way? 4. Does the budget allow for in-depth investigations to be carried out? 5. Consider the requirements of the deal when determining the scope, i.e. for a deal with a large value attached to it, the scope of the investigations should be expanded to ensure an in-depth due diligence process takes place.

Planning	Risk factors	Identify deal-specific risk factors	1. Identify any and all risk factors associated with the deal. 2. Plan and mitigate for these risk factors within the due diligence plan. 3. Share these risk factors with the whole due diligence team.
		Common risk factors	See Table 7.3 for full explanation of the common risk factors. 1. Rushed due diligence [High level of risk]. 2. Ignoring organisational, HR and cultural issues [High level of risk]. 3. Limiting the due diligence process [High level of risk]. 4. Information asymmetry [High level of risk]. 5. Shortened timescales [High level of risk]. 6. Hostile target entity [High level of risk]. 7. Confidentiality issues affecting the timeline [Medium level of risk]. 8. Relationship breakdown [Medium level of risk]. 9. Overworked personnel [Medium level of risk]. 10. Unsuitable target [Medium level of risk]. 11. Entrenched business processes [Medium level of risk]. 12. Overestimation of synergies [Medium level of risk]. 13. Too much due diligence [Medium level of risk]. 14. Overlap of the different lines of enquiry [Medium level of risk].
		Risk mitigation strategies	1. Develop risk mitigation strategies to deal with the risks identified for the deal. 2. Categorise the risks according to two levels: a. Risks that can be mitigated b. Risks that cannot be mitigated 3. Risks that cannot be mitigated must be continuously tracked to ensure that their impact on investigations are minimised. 4. Indemnities or insurance should be taken to minimise the impact of the risks that cannot be mitigated.
	Checklist and timelines	Formulate checklist of investigations	1. Identify the areas of due diligence to be covered. 2. Select the areas of due diligence according to the nature of the deal, the industry within which the target resides and the motive and rationale behind the deal. 3. Decide which investigations should be conducted for each area of due diligence. 4. Start with an exhaustive list of investigations and narrow down the checklist based on which investigations are deemed most appropriate for the deal. 5. Focus on the investigations which matter most; identify the investigations which drive the overall value of the deal and direct a significant amount of resources towards these investigations. 6. Be careful not to narrow the focus excessively as important information may be overlooked. 7. Consider the potential synergies when formulating the checklist of investigations. Conduct investigations to investigate these potential synergies to establish whether they can be realised.

Planning		Indicate constraints on the checklist	1. Allocate individuals from the due diligence team to each investigation on the checklist. 2. Indicate the time available for each investigation. 3. Indicate the budget allocated for each investigation. 4. Develop an overall timeline for the investigations and incorporate buffers to account for any potential overruns.
Due diligence review	**Data repository/room**		1. Set up a secure data room or data repository. 2. Store all data and information collected and received this location. 3. Keep a record of all data and information being stored in the data room or repository. 1. Prioritise and organise all data and information according to the relevant investigations.
	Request for information		2. Compile the information required for each investigation on the checklist. 3. Send a formal request for information to the target. 4. Note down any information that is missing once the information is supplied by the target. 5. Note down any additional information which is required as the investigations proceed. 6. Note down any red-flags picked up during the review. 7. Compile a further request for information document including any information missing and additional information required. 4. Send the further request for information to the target.
	Conducting investigations		1. The team leader must co-ordinate and manage all investigations whilst ensuring that the due diligence team is adhering to the checklist. 2. The budget and timeline must be closely monitored throughout the review. 3. Track all risks identified and ensure adherence to the mitigation strategies. 4. Team members must provide regular feedback on their investigations through the correct reporting lines.
Summarise findings	**Keep an organised paper trail for all investigations**		1. All investigations should be well documented by the relevant team member responsible for the investigation.
	Summary of each investigation		1. Create a summary for each investigation which includes the outcome of the investigation, action items stemming from the investigation, key findings and potential synergies identified. 2. If external advisors or experts completed specific investigations, a specialist report must be complied by the expert to summarise all findings of the investigation.
	Create a diligence synthesis document		1. A diligence synthesis document must be compiled based on the summaries of the investigations. 2. The document must provide a technical overview of the entire due diligence review. 3. The document must include all key findings from the investigations. 4. A master reference must be included with an index of all data and information collected.
	Create executive summary		1. Compile an executive summary for senior management to inform and guide their decision making with respect to the deal.

Recommendations	**Synergy estimates**	1. Provide synergy estimates based on the findings from the due diligence review. 2. Synergy estimates should be provided to the negotiations team to assist them in determining whether it is worthwhile to keep pursuing the deal. 3. Synergy estimates should be provided to the integration team to assist them in deciding what actions to undertake to derive the maximum value form the deal.
	Recommendations for negotiations team	1. Provide recommendations on how to structure the deal taking into account the findings and any risks identified. 2. Recommend warranties or representations to be included in the sales document to account for significant issues or risks identified during the review. 3. Provide valuation information to help establish a price for the deal. 4. Arm negotiations team with the relevant information to help defend their offers for the target.
	Integration recommendations report	1. Compile an integration recommendations report highlighting significant risks as well as potential synergies. 2. Allocate a due diligence team member to join the integration team to guide and assist the team wherever necessary.
Post-merger support	**Carry out transactional due diligence**	1. Carry out transactional due diligence (see component 2 of the tool for more detail) once the deal has been finalised.
	Provide support to the negotiations and integration teams	1. Provide further recommendations backed up by findings during the review. 2. Be available to the negotiations team to provide any information they may require to support the negotiation process. 3. Provide support for the integration effort once the deal has been approved. 4. Put forward suggestions to the integration team based on risks uncovered and synergies identified to help realise the full value of the deal.
	Reflection document	1. Analyse the entire due diligence process. 2. Produce a reflection document which states how the main objectives of the process were achieved, the difficulties which were encountered as well as recommendations for any future due diligence processes that the organisation might embark on.

Table 7.3 - Common risk factors in the due diligence process

Risk Factor	Level	Description
Rushed due diligence	High	Due diligence is often hurried as excitement for the deal rises. The due diligence process is then carried out inadequately which may lead to overestimations of revenue enhancements and cost savings and underestimations of the resource requirements and difficulties involved in integrating businesses.
Ignoring organisational, HR and cultural issues	High	Ignoring organisational culture differences, HR or cultural issues may have high long-term hidden costs. These people or cultural issues either never surface during the due diligence or the acquirer underestimates their importance and fails to recognise them as warning signs of business problems that could sap value from the deal and even threaten the success of the transaction.
Limiting the due diligence process	High	Limiting the DD process to an evaluation of financial statement, management, and physical assets leaves the acquisition process, and more importantly the acquirer, with serious vulnerabilities. It is essential that DD go beyond the obvious analyses and include a detailed self-analysis and thorough review of the markets and competitive environment of prospective acquisitions.
Information asymmetry	High	A significant risk is a lack of information or withheld access to information due to confidentiality or unwillingness of the target to voluntarily share information. Often the due diligence process must be kept quiet with only a limited number of people involved therefore limiting the scope and depth of due diligence. This risk can be mitigated by including indemnities in the agreements to account for the missing information.
Shortened timescales	High	Many deals have short timeframes therefore putting pressure on the due diligence team to conduct their investigations as quickly as possible. There is a risk that the investigations will not be as comprehensive due to the tight schedule resulting in certain aspects being overlooked which can lead to problems further in the deal-making process.
Hostile target entity	High	In cases where the deal is a hostile takeover or where the target does not welcome the deal, the target may not be willing to cooperate with the acquirer therefore making the due diligence process very difficult.
Confidentiality issues affecting the timeline	Medium	Confidentiality issues may affect the time available for due diligence. In sensitive deals where an announcement can affect the share price of the target, keeping the deal hidden from the public is a priority and the time available for due diligence may be limited.
Relationship breakdown	Medium	There is a risk of relationship breakdown between the acquirer and target if the due diligence team begins to ask tough questions or if they come across incriminating information. There is the risk of jeopardizing the entire deal should this materialise. One should therefore go about this with sensitivity.
Overworked personnel	Medium	Due to the short timelines on many due diligence processes, fatigue can often set in for personnel working on the due diligence. This can lead to an incomplete due diligence or there may be the risk that certain information is overlooked. To mitigate this, ensure that work is distributed fairly to all members of the due diligence team and that team members have the requisite experience to conduct a due diligence investigation.
Unsuitable target	Medium	A common cause of M&A failure is due to the incorrect selection of a target. Due diligence investigations can mitigate this risk if the investigation into a potential target is thorough.
Entrenched business processes	Medium	Companies that acquire targets from firms in maturing industries must "untangle" the target's business processes from its parent company; in most cases, the pieces being sold have entrenched processes and cultures that are difficult to integrate into the buyer's organisation.

Overestimation of synergies	Medium	The promise of synergies is often one of the leading motivations for embarking on an M&A. This emphasis on synergies does mean that if synergies are overestimated, there is a significant risk that the deal will not produce the anticipated results.
Too much due diligence	Medium	It is possible for a deal to become paralyzed by the amount of due diligence being conducted on the target. Although it is true that the more detailed the due diligence, the greater the degree of certainty for the deal however there is a point where the cost of obtaining information outweighs the benefit.
Overlap of the different lines of enquiry	Medium	At some stage in the due diligence process, the various lines of enquiry will overlap and impact the findings of one another. The people leading the different enquiries should communicate regularly to establish a basis of understanding of where the due diligence process is at.

7.2.2. Component 2: Due diligence investigations

7.2.2.1. Phase 1: Preliminary due diligence

Preliminary due diligence forms the first of three steps of the due diligence process. This phase is carried out at the beginning of a M&A transaction to assist in target selection. The objectives, investigations and information or data required to complete this phase is summarised in Table 7.4.

Table 7.4 - Phase 1: Preliminary due diligence

PRELIMINARY DUE DILIGENCE	
Objectives	Conduct a formal evaluation of the potential targets to assist in selecting the most appropriate target.
Investigations	Superficial financial evaluation of all potential targets
	Identification of potential synergies with the various targets
	Identification of any significant risks
Information Or Data Required	Publicly available financial statements
	Publicly available information on the potential targets (e.g. articles, company website, web-searches, reports)

7.2.2.2. Phase 2: Due diligence review

Phase 2 of the due diligence process involves the due diligence review. This phase is where the bulk of the due diligence process occurs. This phase has seen the largest change from its corresponding component in the framework. The feedback from the validation of the conceptual framework suggested that the due diligence review should provide better direction as to how to carry out the due diligence review. It is for this reason that the structure of component 2 in the framework was amended for use in the tool.

The basis for phase 2 is the Integrated Due Diligence Approach presented in Section 3.3.4. The Integrated Due Diligence Approach (Gillman, 2010) consists of nine fields which should be covered in a comprehensive due diligence. These fields are audits that encompass the various areas of due diligence which are covered in component 2 of the framework. The audit areas in this tool expands on this integrated due diligence approach with information from component 2 of the framework. In this way, a comprehensive approach towards due diligence is provided.

It was found that that the one area which is lacking in the integrated due diligence approach is the inclusion of intangible factors within the due diligence process. During the systematic literature review, a common theme that emerged was that intangible areas are often overlooked. In fact, many of the papers reviewed highlighted the need to include intangible areas in a formal due diligence process. Whilst certain intangible factors, such as, culture, are addressed in some of the audits, this was deemed to not be enough. For this reason, an additional audit has been included in the tool; the intangibles audit.

The integrated due diligence approach proposes a sequence in which to complete the various audits. This makes it highly applicable to the tool as compartmentalizes the various investigations which must be completed and assigns a priority to each audit thereby providing the user of this tool with direction as to how to carry out the due diligence investigations. The sequence of audits is presented in Figure 7.3.

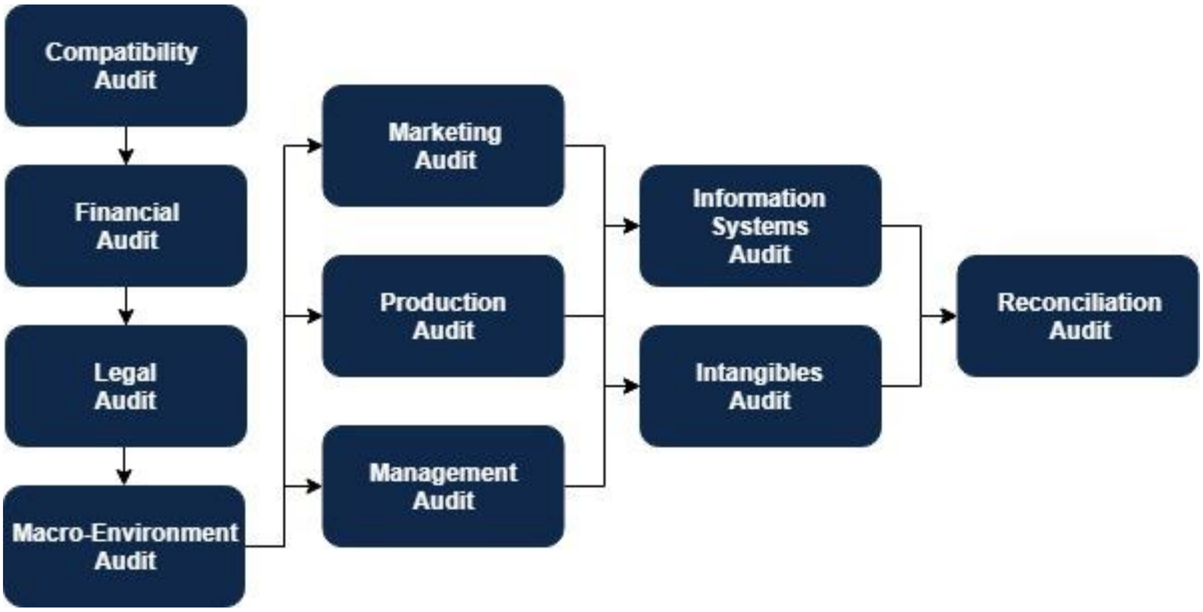


Figure 7.3 - Sequence of audits for phase 2 of the DDM tool

Table 7.5 - Compatibility audit

COMPATIBILITY AUDIT			
Sequence	**Time**	**Source of data**	**Outcomes**
1	Lengthy	External/Internal	Shareholder value, compatibility, synergy, will motives be realised?
Summary of issues to be considered			
Financing	Figuring out how the transaction is to be financed is a crucial issue because this impacts on shareholder value analysis. Shareholder value analysis has a direct impact on the Weighted Average Cost of Capital (WACC) thereby influencing the valuation of the target.	(Gillman, 2010) (Rappaport, 1986)	
Corporate culture	Disparate corporate cultures can often lead to failed transactions. There are two questions which should be answered; (1) Can the two cultures be integrated? (2) At what costs can the cultures be integrated?	(Gillman, 2010) (Harvey and Lusch, 1995) (Harvey and Lusch, 1998)	
Synergy	Future synergies must be clearly defined and quantified. There is often a failure to achieve strategic synergies. It is therefore important to determine what the extent of expected performance	(Gillman, 2010) (Sirower, 2006)	

	improvements are and whether these gains correspond with any premiums which are paid.	
Information systems	There must be an assessment of the compatibility between the acquirer's and target's information systems. The feasibility of executing a formal plan for the information systems should be analysed.	(Gillman, 2010)
Deal breakers	Potential deal breakers can be revealed by a compatibility audit since they often relate to the motives for the M&A transaction.	(Gillman, 2010)
Taxation	Taxation is an important issue to consider during the compatibility audit as it has a direct impact on the company's WACC. There are taxation benefits which are derived when debt is used in financing transactions. Debt and the derived tax benefits reduce the WACC.	(Gillman, 2010)
Anti-competitive legislation	Approval for an M&A transaction must go through a competition or anti-trust commission. The time and costs associated with obtaining approval can be quite high.	(Gillman, 2010)

Table 7.6 - Financial audit

FINANCIAL AUDIT			
Sequence	**Time**	**Source of data**	**Outcomes**
2	Lengthy	Internal/External	Historical/projection scenarios, tax issues, red flags, financial synergy

Summary of issues to be considered

Three key components:

- Analyse historic company performance and assess interim financial results, examine the company's structure, assets and liabilities, estimate future earnings and cash flows and determining individual product line profitability.
- Examination of taxation issues
- Examination of key financial systems and controls

Investigations:

- Ratio analysis and trend analysis
- Analysis of right-hand side of the balance sheet
- Asset structure analysis
- Statement of cash flows analysis
- Share price analysis
- Assessment of sales, net income and wage expense
- Income statement and balance sheet comparison with industry standards and peers
- Assessment of cash management practices
- Evaluation of accounts receivable
- Assessment of internal management reporting system
- Evaluation of firm's abilities to collect overdue receivables
- Review commissions, selling expenses, general and administrative expenses
- Examine extraordinary and nonrecurring expenses

Information/data required

- Monthly, quarterly and annual financial statements (at least 3 years)
- Financial results by division/department
- Current year projected financial statements
- List of bank accounts and related balances
- List of total receivables balances due from customers, officers, employees and others

• List of accounts payable • List of suppliers with approximate annual amounts purchased • List of contingent liabilities and their amounts • List of contracts and agreements with any indication of price renegotiation or redetermination • All tax returns for previous five years • List of all taxes for which target is liable for • Date and result of latest audit • Record of payroll tax deposits and compliance with withholding requirements

Table 7.7 - Legal/Environmental audit

LEGAL / ENVIRONMENTAL AUDIT			
Sequence	**Time**	**Source of data**	**Outcomes**
3	Moderate	External/Internal	Organisational documentation, contingent liabilities, existing/potential internal and external hazards
Summary of issues to be considered			
Share ownership and transfer of assets	This investigation ensures that the seller or target has the proper rights to the shares which it is selling.	(Schmitz and Clark, 1996)	
Compliance with M&A laws	The legal audit should test whether the transaction complies with the laws and regulations relating to M&A within the country where the transaction is taking place.	(Gillman, 2010)	
Litigation	It is important to scrutinize and assess all current and potential legal claims and determine the impacts based on the current legislation. Legal counsel should especially look out for repetitive small claims by different people as this can be an indication of a serious underlying problem.	(Harvey and Lusch, 1995) (Begg, 1991)	
Legal compliance	There must be an investigation to determine whether the target has been and is compliant with all laws and regulations as non-compliance can have serious economic implications on the deal.	(Harvey and Lusch, 1995)	
Real property	Legal counsel must confirm ownership of all real property belonging to the target and determine if there are any liabilities attached to the property. Further, the legal team must determine if there is any leasehold property and should consider two aspects: (1) Is the target a lessor of land? (2) Is the target a lessee of land?	(Gillman, 2010) (Begg, 1991)	
Insurance matters	All essential policies must be examined to assess the adequacy of cover. Further, there should also be an investigation into uninsured risks to establish why these risk areas are not covered.	(Begg, 1991)	
IP rights	IP is an important part of an organisation therefore a thorough assessment must be completed to confirm ownership as well as any current or future issues. The investigation should also confirm that the target has legal title to copyrights and trademarks.	(Rechtin, 1992)	
Debt and financing	The terms and conditions of all loan agreements and overdraft facilities must be examined. Furthermore, if there is a holding company involved in the transaction, it should be established whether the holding company is a guarantor of	(Bing, 1996)	

	certain loans of the target. Lastly, the lender's attitude towards the target should be determined.	
Labour contracts and history	The legal team must investigate the validity of labour contracts and to determine if there are or were any ongoing or previous disputes. Furthermore, they must determine whether employees of the target are unionised and if not, whether there are any plans for them to become unionised.	(Gillman, 2010) (Bing, 1996)
Environmental issues	This investigation should establish compliance with environmental regulation and if there are any significant environmental issues that the target is facing. Historical environmental issues should also be investigated as these can have long-lasting impacts on an organisation.	(Gillman, 2010) (Harvey and Lusch, 1995)

Information/data required

- List of charges pending against the target
- List of ongoing disputes with suppliers, competitors and customers
- List of decrees, orders or judgements of courts or governmental agencies
- Copies of pleading or correspondence for pending or previous lawsuits involving the target
- Copies of material contracts, sales and purchase agreements
- Copies of titles, deeds, patents, proofs of purchase and any other ownership documents

Table 7.8 - Macro-environment audit

MACRO-ENVIRONMENT AUDIT

Sequence	Time	Source of data	Outcomes
4	Moderate	External/Internal	Industry history, trends,

Summary of issues to be considered

- Business and industry link with performance: What has made the company successful in this industry? What are the critical success factors within the industry?
- Impact of the macro-environment on the industry: an assessment of the political social and psychological trends that influence behaviour in the target's industry.
- Competitor profiles: identification of competitors and their strategic position within the market, their relative competitive advantage, the strengths and weaknesses of competitors, and a forecast of the behaviour of competitors.
- Environment opportunities and risks: possible growth opportunities, risks within the macro-environment that may limit the success of the company, the economic cycles that affect the overall health of the industry.
- Management philosophy: what is the management philosophy of companies within the industry and how will macro-environmental changes affect this? What is the position of the industry on social, environmental and economic issues? What is the attitude of governing bodies towards the industry and the companies?

Information/data required

- Market size and growth prospects for the market
- Target's market share
- Information on the target's competition within the market
- Major customer relationships with percentage of overall business
- Channels of distribution for target and peers and their relative importance
- Actual sales and forecasts for recent years, by department or product lines
- Forecast of sales for the future
- History of sales cancellations and their reasons
- Sales and expenses per salesperson
- Information on customer complaints and lost customers

- Policy on product or service warranties and outstanding exposure
- History of claims under warranties
- Interviews with target's customers, distribution channels and competition

Table 7.9 - Marketing audit

MARKETING AUDIT			
Sequence	**Time**	**Source of data**	**Outcomes**
5	Lengthy	External/Internal	Product positioning, consumer loyalty, sales effectiveness
Summary of issues to be considered			
Marketing environment	• Attain an in-depth understanding of product, price, promotion and marketing mix. • Consider the potential size of the market and industry. • Consider the key marketing agreements in place, including franchise agreements and commission or agency agreements. • Consider the plan for the development of future and actual products.		
Marketing strategy audit	This involves an examination of the target's marketing strategies and the impact that the M&A transaction will have on these strategies. Determine the long-term objectives and verify whether they attainable.		
Marketing organisation audit	Investigate the interaction between the marketing function and sales function. Further, assess the integration of the marketing function with the other functional areas in the organisation.		
Marketing systems audit	Gather information regarding the effectiveness of information collection for decision-making in the marketing function.		
Marketing productivity audit	Determine whether the products produced or services offered are profitable and whether marketing costs can be reduced.		
Marketing function audit	Analyse the individual marketing departments or divisions within the marketing function to determine their effectiveness.		
Information/data required			
• Recent advertising budget, including placement and timing of the advertisements • Current brochures and sales material • Articles and marketing studies relating to the target • Past and present press releases from the target • Cash flow attributed to the brand			

Table 7.10 - Production audit

PRODUCTION AUDIT			
Sequence	**Time**	**Source of data**	**Outcomes**
5	Moderate	External/Internal	Efficiency of production process, capacity, equipment assessment, operational synergy
Summary of issues to be considered			
Physical plant and equipment value and sustainability	Assessing the value of plant and equipment is essential as it supports the valuation process of the target. The future life of the plant and equipment should be ascertained as well as an assessment of capital expenditure budgets. The due	(Bing, 1996) (Gillman, 2010)	

	diligence team should also investigate whether any property or equipment is leased.	
Management and staffing	Personnel can provide information on how the plant and equipment has been serviced. The competence of management and the staff should be ascertained to determine if the manufacturing operation is effective.	(Bing, 1996) (Gillman, 2010) (Harvey and Lusch, 1995)
Manufacturing system appraisal	The due diligence team must determine how the product is manufactured. This investigation examines the interaction between materials, manufacturing space, equipment, human resources and data. The capacity of the plant and potential to expand operations must be assessed. Lastly, the impact of international competition on the sustainability of the manufacturing processes should be ascertained.	(Harvey and Lusch, 1995) (Gillman, 2010)
Cost centre profitability	Evaluate the individual profitability of each manufacturing division within the target. The due diligence team must also take into consideration the cost of production labour as well as the relationship between fixed and variable costs. Finally, the break-even points for each product should be determined.	(Bing, 1996) (Gillman, 2010)
Quality controls	The quality of products produced must be investigated as this can have a direct impact on accounts receivable. Any risks associated with product quality should be determined (i.e. litigation). The due diligence team can also consult industry quality standards and certifications to compare the target against.	(Thilmont and Vermeulen, 2003)
Sub-contracting	Explore any opportunities for sub-contracting that can affect future synergistic benefits and will influence future cash flows.	(Bing, 1996) (Gillman, 2010)

Information/data required

- Process architecture, which includes, inputs, outputs, flow units, network of activities and buffers, resources required and information structure
- Product or service attributes necessary to satisfy customers; and related cost, response time, variety and quality
- Process attributes necessary to deliver products or services; and related cost, flow time, flexibility and quality
- Data on utilization rates of manufacturing or service operations
- List of order backlogs
- List of assets in raw materials, work-in-process and finished goods inventories
- Copy of quality control procedures
- Records on defective products
- Records on scrap and unshipped or rejected products
- Records on subcontracted labour, parts or products
- List of suppliers with copies of supplier contracts and commitments
- Terms of payment to suppliers and/or vendor financing
- Historical percentage of sales represented by purchased goods or services
- Use of commodity agreements or other risk management devices to hedge price uncertainties in supply
- Copies of distribution or logistical contracts
- Records of labour strikes and grievances

Table 7.11 - Intangibles Audit

<table>
<tr><th colspan="4">INTANGIBLES AUDIT</th></tr>
<tr><th>Sequence</th><th>Time</th><th>Source of data</th><th>Outcomes</th></tr>
<tr><td>6</td><td>Lengthy</td><td>Internal</td><td>Understanding of the target’s culture, IP, HR processes, and R&D unit</td></tr>
<tr><th colspan="4">Summary of issues to be considered</th></tr>
<tr><td>Cultural issues</td><td colspan="3">1. Analyse communication style both internally and externally
2. Examine decision making (top down vs. decentralized, unilateral vs. team-based)
3. Evaluate culture of innovation (reliance on traditional approaches vs. experimentation with new methods)
4. Explore extent of solutions sharing (extent of transfer of best practices within the firm)
5. Investigate training practices
6. Explore work orientation (emphasis on processes and roles vs. getting results)</td></tr>
<tr><td>IP issues</td><td colspan="3">1. Confirm that the target owns all IP rights
2. Review all property files dealing with patents and trademarks, trade secrets, copyrights, license agreements, confidentiality agreements, joint venture agreements and confirmation of payment of maintenance fees and taxes where applicable
3. Check for defects in property or issues in ownership whilst also searching for strengths and weaknesses of the IP
4. Investigate if there have been any charges of infringement made - whether by the target or by an external party
5. Assess the economic significance and impact of comparable or new technology, copyrights, etc. if deployed by competitors
6. Profile the target’s emerging IP
7. Identify potential benefits and costs of the transfer of IP and intangible assets from the target to the acquirer.</td></tr>
<tr><td>Human resources issues</td><td colspan="3">1. Review general labour pool in the target’s geographical markets
2. Estimate extent of over- or underfunding of health and retirement plans for both active employees and retirees
3. Evaluate working conditions, attrition statistics and reason for attrition
4. Assess medical problems and sick leave frequency</td></tr>
<tr><td>R&D issues</td><td colspan="3">1. Investigate the adequacy of management of R&D program
2. Assess the effectiveness of R&D efforts
3. Assess the capabilities of the R&D department</td></tr>
<tr><th colspan="4">Information/data required</th></tr>
<tr><td>Culture</td><td colspan="3">• Target’s corporate statements on its mission, vision and values
• Copies of departmental goals and objectives
• Accounts about internal conflicts and how they were resolved
• Accounts about firm traditions and celebrations
• Observations on communication etiquette
• Observations of in-person interactions between employees, on the one hand, and between employees and customers, on the other
• Observations of bulletin boards, cafeteria and reception areas
• Copy of organisational chart
• Copy of corporate capital expenditure procedures
• Copy of corporate training offerings and attendance rates
• Copy of agenda of recent senior management meetings with details on the structure and content
• Biographical sketches on managers and supervisors
• Accounts of conflict or harmony relating to diversity in the workplace
• Records of charitable and political contributions of cash or in-kind resources
• Copy of written code of conduct
• Using employee surveys as a cultural assessment tool</td></tr>
</table>

IP	• List of all patents granted, pending or to be pursued by the target • List of all copyrights, trademarks and service marks claimed by the target • List of all disputes over IP or infringement claims • List of comparable IPs held by competitors • Policies and procedures for documenting and protecting inventions or creations • History of royalties or indemnifications • Contracts regarding the use or protection of intellectual and intangible assets
HR	• Number of employees with details of job descriptions • Wages, commissions, benefits and prerequisites for employee groups • Employee performance reviews • Biographical information on managers • Information on employee incentive plans, retirement and health benefits as well as annual cost of premiums and percentage of premiums paid by employees • List of unfilled positions • Union contracts and material employment contracts • Description of medical, vacation, transportation, tuition assistance and other programs • Copy of all audit or actuarial reports concerning pension and retirement plans for recent years • Copies of written inquiries or complaints • Administrative service contracts for all employee benefit plans • A list of vacation plans or policies and employee fringe benefits • Schedule of compensation paid to officers, directors and key employees showing salary, bonuses and noncash compensation • List of employee agreements and unwritten understandings • Key employee losses to other firms • Summary of labour disputes • List of negotiations with any group representing employees • Employment and consulting agreements, loan commitments and documents relating to other transactions with officers, directors, key employees, former employees and related parties • Non-compete agreements with current and former employees
R&D	• Description and rationale for R&D projects in process currently • Forecast of completion dates and costs for ongoing R&D projects • Historical cost of R&D projects and success rate

Table 7.12 - Information systems audit

INFORMATION SYSTEMS AUDIT			
Sequence	**Time**	**Source of data**	**Outcomes**
6	Short	Internal	Hardware/software compatibility
Summary of issues to be considered			
Hardware and software	The team must compile a list of all hardware. The hardware power must be examined, and vendor agreements should be scrutinized. The team must assess the stability of existing hardware and software, including licensing, ownership and ability to develop.	(Harvey and Lusch, 1995) (McDonnell, 2007)	
Management matters	The cost of personnel, both internally and externally, needed to run the information system should be determined. The due diligence team must identify key staff members who are responsible for the information systems to determine who to retain.	(Harvey and Lusch, 1995) (McDonnell, 2007)	
Control issues	An information system control audit should be carried out to confirm that the integrity and confidentiality of a company's	(Gillman, 2010)	

	data is maintained. Further, any threats posed by viruses or security breaches should be investigated to ascertain the potential risks.	
Confidential client information	A lot of companies keep databases relating to customer and supplier information. To avoid criminal and civil procedures, it is crucial to establish whether the target's databases are properly secured and that the data has been obtained legitimately.	(Gillman, 2010)
Internet	The way in which the target makes use of the internet to assists in internal and external communication should be examined.	(Gillman, 2010)
Information/data required		
• List of current IT hardware and software along with dates of purchase and integration • List of current IT projects along with workflows and status reports • List of unfilled IT requests • Operating budget for the IT department • Hardware and software agreements with third parties with log of all maintenance done		

Table 7.13 - Reconciliation audit

RECONCILIATION AUDIT			
Sequence	**Time**	**Source of data**	**Outcomes**
7	Lengthy	Internal	Valuation of assets, projection scenarios, tax issues, risks, shareholder value analysis
Summary of issues to be considered			
• Quantify the effect of cash flows/earnings and net asset values discovered in other audit areas. • Gather areas of risk found in the other audit areas. • Mitigate risks with the use of insurance, warranties, representations and professional involvement. • Determine the value of the entity. • Apply this value to the shareholder value analysis model to determine whether the deal is viable. • Ensure that the findings and assumptions are applied to the post-acquisition situation			
Information/Data			
• Data from all other audit areas			

7.2.2.3. Phase 3: Transactional due diligence

Transactional due diligence is the last step of the due diligence process. Transactional due diligence takes place once the deal has been finalised. In many cases, the due diligence process ends after the deal has been signed, however it is strongly advisable to not do this.

There are no prescribed investigations for transactional due diligence. It is up to the discretion of the due diligence team to carry out any final investigations or checks. If there are any uncertainties for any of the investigations carried out during the due diligence review, the due diligence team can address these uncertainties during transactional due diligence. A summary of transactional due diligence is provided in Table 7.14.

Table 7.14 Phase 3: - Transactional due diligence

TRANSACTIONAL DUE DILIGENCE	
Objectives	Assist the integration team in their efforts to ensure a smooth transition to the new organisation and minimise the risks
	Assist the integration team in addressing integration issues
	Determining a precise value for items that could not be quantified during the due diligence review
Investigations	Carry out investigations that could not be completed due to a lack of information
	Complete any additional investigations as required.
Information Or Data Required	Availability to information directly from the target due to unrestricted access.

7.3. Case study

This section covers the process of conducting a case study to evaluate the effectiveness of the DDM tool. The case study is based on a successful M&A transaction carried out by an investment holding company, hereby referred to as the "PECo" (Private Equity Company), to acquire an engineering firm, hereby referred to as the "EngCo" (Engineering Company).

Due to the sensitive nature of the information presented in this case study, the real names of the target and acquirer have been omitted to ensure confidentiality.

Section 7.3.1 presents the basis for the case study selection. This is followed by an overview of the data collection and analysis thereof. Thereafter, a comprehensive discussion of the case is presented to provide the necessary context for the investigation. The DDM tool is then applied to the case. The importance of each item addressed in the management tool is presented in relation to the case and the prevalent findings are documented.

7.3.1. Case study selection

The aim of this case study is to understand how PECo conducted their due diligence on the Target and relate this back to the DDM tool to evaluate the usability and usefulness of the DDM tool in this context.

Yin (2012) explains that case studies can be exploratory, explanatory or evaluative. Exploratory case studies usually precede social research. Explanatory case studies are generally used in causal investigations. Evaluative case studies are used to assess or evaluate some type of initiative. This case study is evaluative since it tests the applicability of the DDM tool in a real-world context.

The fieldwork conducted in this study analyses the case of PECo and their acquisition of EngCo. This case was selected due to the willingness of the PECo to participate in the case study. The deal took place in one jurisdiction (i.e. it is not a cross-border deal) therefore it is appropriate to apply the DDM tool to this case. PECo, as an investment holding company, regularly conducts M&A due diligence processes before they undertake investment deals.

The participants of this case study work closely with EngCo which is why this particular deal was selected.

7.3.2. Data collection and analysis

The data for this case study was collected from different sources. To obtain background information on the firm and an overview of the deal, data was gathered from the company website, news articles as well as information supplied from PECo. PECo provided access to the deal information as well as the due diligence investigations, such as, the valuation for the deal.

The case study was segmented into three distinct elements, namely: (1) background information, (2) insight into the PECo and the deal, and (3) confirmation of the usefulness of the tool. Table 7.15 provides a breakdown of how data was collected for each element of the case study. Ethical considerations were an important aspect of this case study. As stipulated by the REC, an institutional permission letter was obtained from PECo and both participants signed consent letters before the interviews commenced.

Table 7.15 - Case study elements and their corresponding data collection methods

Element	Data Collection Methods
Background Information	Website, news articles, information supplied by PECo
Insight into the firm and deal	Interview and discussion with two employees of PECo, information supplied by PECo
Confirmation of the usefulness of the tool	Interviews with two employees of PECo

7.3.3. The Deal

7.3.3.1. The acquirer: PECo

PECo was established in early 2000. The company is a holding company whose area of focus is in investments. The company is involved in a number of businesses in various sectors of the South African economy. These industries include: mining and energy, manufacturing and engineering, education, risk services, financial services, gaming, and private equity investments. PECo is recognised as an active leader within the investment arena in South Africa.

The company prides itself of incorporating the notion of transformation across all business spheres. PECo is a level 1 broad based black economic empowerment (BBBEE) company.

PECo typically invests in companies which have an EBITDA (earnings before interest, tax, depreciation and amortization) of at least R30 million. Further, the companies in which PECo invests should have sustainable or predictable cash flows.

7.3.3.2. The target: EngCo

EngCo was founded in 1949 and is headquartered in Durban. The company is primarily engaged in the manufacturing, repairing and distribution of industrial engineering products and services. It has a medium to heavy engineering facility that provides products and services principally to the petrochemical, sugar and automotive industries but also caters for mining, general engineering and ship repair.

Approximately 65% of EngCo’s clients service the petrochemical industry, 35% service the sugar sector, and 5% service the automotive and marine industries. The company is well located for servicing customers in these sectors as Durban is considered the hub of sugar plantations and sugar refineries in South Africa. There are also numerous oil refineries due to the proximity of the Port of Durban.

EngCo faces significant competition from domestic and international engineering companies including oilfield equipment and service companies. The primary market segment is highly fragmented and competitive. The contracts that EngCo competes for are usually awarded on the basis of competitive bids or tenders. Pricing, access to raw materials and adherence to delivery dates are the primary factors potential clients consider in selecting contractors. Other factors which are important in the selection process of contractors include quality, consistency and strong brand recognition. Owing to the fact that EngCo has been present in the market for a long time and their high-quality product offering, the company has a reputable brand and image within the industries it operates in.

EngCo has a competitive advantage over other organisations trying to enter the market. These include:

- Technology platform: EngCo has proven itself in the market through the unique and specific manufacture of various products and services. EngCo is also capable of producing heat exchangers from start to finish, completely in-house which is a feature that none of their competitors possess.
- Exclusive contracts with clients: Most of the contracts between EngCo and the clients are mutually exclusive for periods of between one and five years.
- Long operating history: EngCo is widely regarded as a "brand name" in the petrochemical and sugar industries and is a preferred supplier within these industries. In addition, their work force has an average of 20 years of experience. This is significant considering the industry wide skills shortage.
- Large capital requirement: The economies of scale for a company aiming to enter into the engineering industry and compete with the quality and calibre of work offered by EngCo is high.

Despite the competitive advantage which EngCo possesses over its competitors, the company faced several issues internally and externally. These issues are summarised in Table 7.16.

Table 7.16 - Summary of internal and external issues facing EngCo

Internal Issues	External Issues
• Inability to meet delivery dates due to supply chain problems. • Competition from leading global brands. • Limited internal emphasis to leverage EngCo's market expertise and brand awareness from a historic perspective. • High maintenance costs. • Reliance on sub-contractors.	• South African currency uncertainty and its effects on imported inputs. • Foreign competition, especially from China and India. • Limited suppliers. • Foundry competition locally.

The next section highlights the circumstances which led to the acquisition of EngCo by PECo.

7.3.3.3. Acquisition of EngCo

In 2015, EngCo went into business rescue. Business Rescue in terms of Chapter 6 of the Companies Act, no. 71 of 2008 of South Africa (Government Gazette, 2008) facilitates the rehabilitation of a company that is financially distressed in order to rescue the company. This is achieved by restructuring its affairs, business, property, debt and other liabilities and equity in a manner that maximises the likelihood of the company continuing on a solvent basis or if that is not possible, results in a better return for creditors than an immediate liquidation.

EngCo remained a profitable entity regarding its core business buts its profitability was hampered by, amongst other things, the poor performance of its subsidiaries within the EngCo Group and increased overheads. Some of the other reasons for why EngCo went into business rescue are listed below.

- Significant loans were extended to under-performing subsidiaries.
- The company moved its head office to an exclusive and high-end office district.
- A number of personnel hired at the head office were adding little value to the core operation.
- The company had an unfavourable labour broking arrangement with a labour broker, which provided for a mark-up on the labour force of EngCo.

There were other external factors which also led to EngCo's financial distress. These factors are listed below.

- As a result of a drought, the sugar industry experienced a low yield which in turn resulted in a reduction of capital expansion projects in the industry.
- As a result of low oil prices, refineries reduced capital expansion projects and were engaging in maintenance work only.
- The poor growth rate of the South African economy had adversely affected the manufacturing and maintenance industries in which EngCo carries out its business.

As a result of being placed under business rescue, clients suffered in the way of delayed delivery of their products. This was mainly due to EngCo being unable to pay their suppliers due to a shortfall in cash flows. This had the added adverse effect of “souring” the trusted relationship between EngCo and its customers.

Further, the business rescue process made it difficult for EngCo to participate in the tender market as it is automatically rejected during the review process. It was therefore extremely difficult for the company to secure new sales. It was therefore imperative that the company was brought out of business recue as soon as possible.

It was under these circumstances that PECo stepped in to acquire a majority share capital stake in EngCo. In addition, PECo received a two-thirds voting rights stake in EngCo. PECo often seeks out companies in business rescue in order to acquire a stake in the company and assist in returning the company to a profitable state.

As part of the M&A process, PECo undertook a comprehensive due diligence investigation of EngCo. PECo regularly conducts due diligence investigations on the companies in which they invest. In the case of EngCo, a lot of emphasis was placed on the financial due diligence investigations owing to the situation in which EngCo was in.

The next section will focus on the application of the DDM tool in the case of PECo’s acquisition of EngCo.

7.3.4. Case study discussion

This section presents the results of the case study. Through the case study, the DDM tool was applied practically. Much of the information provided during the case study discussion was through interviews with the two employees from PECo. In certain instances, information supplied by PECo was used in the application of the DDM tool to the case study.

Owing to the sensitive nature of the due diligence investigation on EngCo, PECo was not able to disclose all the details of the due diligence investigation which was conducted.

The processes that were followed by PECo during their due diligence investigations are mapped against the DDM tool to determine the tool’s utility and practical application. Feedback and recommendations regarding the DDM tool as a result of the case study are also included. The case study discussion is presented according to the two components of the DDM tool, namely, due diligence process management and due diligence investigations, in sections 7.3.4.1 and 7.3.4.2, respectively.

7.3.4.1. Component 1: Due diligence process management

PECo does not include due diligence process management as part of their due diligence activities. There are certain aspects from this component of the DDM tool that are done as part of their standard due diligence activities.

The general feedback regarding this component of the tool was positive. The participants agreed that by taking some time before the start of the due diligence investigations to plan the due diligence process and account for constraints, the due diligence process could be better managed.

The case study findings for component 1 (due diligence process management) of the DDM tool are presented in Table 7.17.

Table 7.17 - Case study findings for Component 1: Due diligence process management

<table>
<tr><th>Step</th><th>Activity</th><th>Case Study</th><th>Feedback And Recommendations</th></tr>
<tr><td rowspan="3">Due Diligence Team</td><td>Team composition</td><td>• Due to the size of the acquirer, the due diligence team and deal team consisted of the same people.
• The team was kept relatively small.
• External experts were contracted to assist with financial and legal audits.</td><td rowspan="3">Generally, the team composition will be dependent on the size of the acquirer and the key competencies available.

It was noted that not having a degree of independence between the deal team and due diligence team is important. This would assist in eliminating any bias during the due diligence investigation.</td></tr>
<tr><td>Communication</td><td>• Open communication between the team members due to the size of the due diligence team.
• PECo consulted quite extensively with the business recue practitioner to obtain some of the information required.</td></tr>
<tr><td>Constraints</td><td>• PECo did not set out a budget for the due diligence process from the outset; however, costs were always monitored.
• Due to the target being in business rescue, the timeframe for due diligence was limited.</td></tr>
<tr><td rowspan="3">Motive and rationale</td><td>Identify and understand primary motivation/rationale</td><td>• PECo wanted to invest in the engineering sector.
• PECo considers that there is scope within the EngCo’s product offerings to expand further into the petrochemical industry and the mining industry</td><td rowspan="3">In communicating the motive and rationale for the deal to external experts and consultants, it is important to direct these parties to focus their investigations on key aspects that are crucial to the deal.</td></tr>
<tr><td>Identify synergies and risks</td><td>• The major risk identified was EngCo’s poor financial standing along with the fact that the company was in business rescue.
• Potential synergies were sought out between EngCo and PECo’s other investments. The main area identified is that EngCo could possibly expand into the mining sector where PECo has interests already.</td></tr>
<tr><td>Communicate the motive and rationale</td><td>• PECo ensured that all external parties were made aware of the motive and rationale for the deal.</td></tr>
</table>

Planning	Results of preliminary due diligence		• See Table 7.18.	No feedback or recommendations provided for this activity.
	Constraints	Time	• The time available for the due diligence process was extremely limited due to the target being in business rescue. • The business rescue practitioner indicated that there were certain timelines that would need to be met to satisfy the creditors and directors of EngCo. • Overall, the due diligence process was completed in the space of a month.	This aspect of the tool was very well received. It was noted that budget and time constraints are not adequately accounted for at the start of the due diligence process. A recommendation for considering time constraints is to build a buffer into the due diligence timeframe to consider all the findings and allow enough time for the drafting of a Letter of Intent and/or term sheet or informing the negotiations team and integration team of key findings.
		Budget	• Although a formal budget was not allocated for due diligence, there were regular check-ins amongst the team members to discuss costs surrounding the due diligence process. • Regular fee updates were requested from external parties.	
		Personnel	• There were no significant constraints in terms of personnel.	
		Situational factors	• There were significant situational factors at play, namely, banks requesting repayment on overdraft and credit facilities. • The target was in business rescue.	
	Determine the scope of due diligence		• Owing to the sensitive financial position that the target was in, the scope of the financial audit on EngCo was increased. • Other areas of due diligence were covered in less detail as the majority of the resources went into the financial audit.	The scope of the due diligence investigations is always dictated by the level of risk. If there is elevated risk, the scope of work will increase and the time and detail spent on investigations will increase.
	Risk factors		• The most significant risk facing this deal was the target's financial position and the fact that the company was in business rescue. • There was also the risk of a hostile executive team, namely, the Chief Executive Officer and Chief Financial Officer of the company; however, the rest of the company was open and welcoming to the potential investment by PECo as the deal was seen as a lifeline for the company.	The list of common risk factors was well received. The interviewees confirmed that a lot of these common risk factors are not always considered. State risk should be considered in the South African context.
	Checklist and timelines		• There was no formalised checklist for this due diligence.	It was noted that having formalised checklists before the start of the due diligence investigation is important to ensure that no important investigations are left out.

Due diligence review	Request for information	• The business rescue practitioner provided a lot of information on EngCo to the due diligence team. • The due diligence team started with a standard list of information and data required and then added in information that was specific to the deal	Depending on the nature of the deal, the request for information will either be sent to management of the target or the shareholders.
	Data repository/room	• A digital and physical data room was set up for this deal where all information and data received from EngCo was stored.	
	Conducting investigations	• See Table 7.18.	
Summarise findings	Keep an organised paper trail for all investigations	• All documents and information were stored in the data room; however, PECo did not keep a comprehensive record of all information and investigations.	Depending on the nature and size of the deal, the summaries may be kept quite concise and only an executive summary and due diligence synthesis document may be produced.
	Summary of each investigation	• This was not completed for this deal.	
	Create a diligence synthesis document	• This was not completed for this deal.	
	Create executive summaries	• The due diligence team drafted an executive summary which included high-level summaries of the financials, the checks were done and the main findings. • The executive summary was shared with the executive team of PECo.	
Recommen-dations	Synergy estimates	• Synergy estimates were included in the financial projects which were carried out. This area was covered extensively.	No feedback or recommendations provided for this activity.
	Recommendations for negotiations team	• This was not completed for this deal.	
	Integration recommendations report	• This was not completed for this deal.	
Post-merger support	Carry out transactional due diligence	• This was not completed for this deal.	The reflection document was identified as being very helpful to assist in learning from a due diligence process and using this to inform due diligence processes going forward.
	Provide support to the negotiations and integration teams	• Due to the size of PECo, there were no individual negotiations and integration teams. The deal team covered all stages of the deal.	
	Reflection document	• This was not done in a formal document; however, PECo does have regular deal forums where due diligence matters are discussed and techniques and approaches are shared amongst the staff.	

7.3.4.2. Component 2: Due diligence investigations

Owing to the sensitive nature of much of the information regarding the due diligence investigations, PECo was not able to share the full details and outcomes of the investigations. There was some insight provided into the various audit areas and feedback was provided on the content of this component of the tool.

Not all audit areas were covered during the due diligence investigation into EngCo. A lot of emphasis was placed on the financial, legal and production audits. At the time of conducting the due diligence investigations, these audit areas were highlighted as being the most strategic and important areas for investigation.

The general feedback for this part of the tool was positive. The participants appreciated the compartmentalised approach to the different audits as it provided for a structured approach to the due diligence process. Further, it was noted that taking a process perspective on the due diligence investigations helped in covering all audit areas comprehensively and minimised the risk of conducting a biased investigation. Lastly, the participants confirmed that the inclusion of the intangibles audit within the audit procedure was of significant importance as the areas of investigation that fall under this audit area are usually left out of the due diligence process. Issues relating to these areas, such as, cultural, HR and IP issues generally come to the fore after the deal has been completed.

The case study findings for component 2 (due diligence investigations) of the management tool is presented in Table 7.18.

Table 7.18 - Case study findings for Component 2: Due diligence investigations

DUE DILIGENCE PHASE		CASE STUDY	FEEDBACK AND RECCOMENDATIONS
Preliminary due diligence		• Check if the investment fits PECo's mandate. • EngCo met the EBITDA requirements of PECo. • A quick check of the company's financials were completed before agreeing to continue pursuing the deal.	• This phase of due diligence was found to be adequate.
Due Diligence Review	Compatibility audit	• This audit was not covered in depth during this due diligence investigation.	• It was noted that there are similarities between preliminary due diligence and the compatibility audit.
	Financial audit	• A thorough financial audit was conducted on the target. • Projection models were also developed to ensure that the target was able to rectify their poor financial standing in the long run.	• This audit was found to be adequate.
	Legal audit	• An external law firm was contracted to perform a full legal due diligence. • Litigation issues were uncovered during this audit, which continued after the deal was approved.	• This audit was found to be adequate.
	Macro-environment audit	• PECo did not take an in-depth look at the industry as a whole when completing this audit. • For example, the impact of the Government's sugar tax table in 2016, which was introduced in 2018, was not considered.	• This audit was well received by the interviewees as they admitted that this is not an area where they usually pay close attention to.
	Marketing audit	• This audit was not covered in depth during this due diligence investigation.	• This audit was found to be adequate.
	Production audit	• An extensive production audit was conducted due to nature of the business. • EngCo owns significant assets in the way of physical plant and equipment. • The majority of employees at EngCo work within the production side of the business.	• This audit was found to be adequate.
	Management audit	• Issues with management were discovered during this audit. • These issues were accounted for and resolved once the deal was finalised.	• This audit was found to be adequate.
	Information systems audit	• The information systems used at EngCo were not sophisticated. • The audit on this area found that the information systems in place at EngCo were outdated and required replacement.	• This audit was found to be adequate.

	Intangibles audit	• Significant gaps in terms of skills was discovered after the acquisition of EngCo. These issues were only uncovered after the acquisition. • A full IP investigation was not completed. • EngCo has a lot of IP which fell into the hands of their customers. Had PECo conducted a full IP investigation, EngCo's IP could have been protected to prevent the leaking of its IP.	• It was noted that this is one of the most important audits to be conducted however it is often overlooked. • The inclusion of this audit within the tool was commended by the interviewees.
	Reconciliation audit	• This audit was not covered in depth during this due diligence investigation.	• This audit was found to be adequate.
Transactional due diligence		• Transactional due diligence was not covered in this case	• This phase of due diligence was found to be adequate.

7.3.5. Case study conclusion

The DDM tool was applied and thereby validated by means of a case study on the acquisition of EngCo by PECo. The feedback from PECo regarding the DDM tool is set out below:

- The tool is very useful in terms of providing guidance and support for a due diligence process.
- PECo confirmed that they could use the tool to enrich their own due diligence processes.
- The DDM tool assisted PECo in identifying gaps in their own due diligence processes.
- PECo sees the management tool as a form of best practice for due diligence.
- The DDM tool assists the due diligence team in effectively identifying and quantifying the constraints facing the due diligence process and plan to effectively manage these constraints.
- The DDM tool assists the due diligence team to consider, plan for and mitigate the risk factors facing the deal.
- Component 1 of the DDM tool provides good direction on how to set up, manage and execute a due diligence process.
- Component 2 of the DDM tool assists in embarking on a due diligence investigation in a systematic and process-oriented way which eliminates bias from the due diligence process.

The evidence from the case study and the feedback from PECo suggests that the DDM tool satisfies its design goals by: (1) providing a systematic approach to the due diligence process, (2) addressing significant constraints facing the due diligence process, and (3) addressing the risk factors associated with a M&A deal.

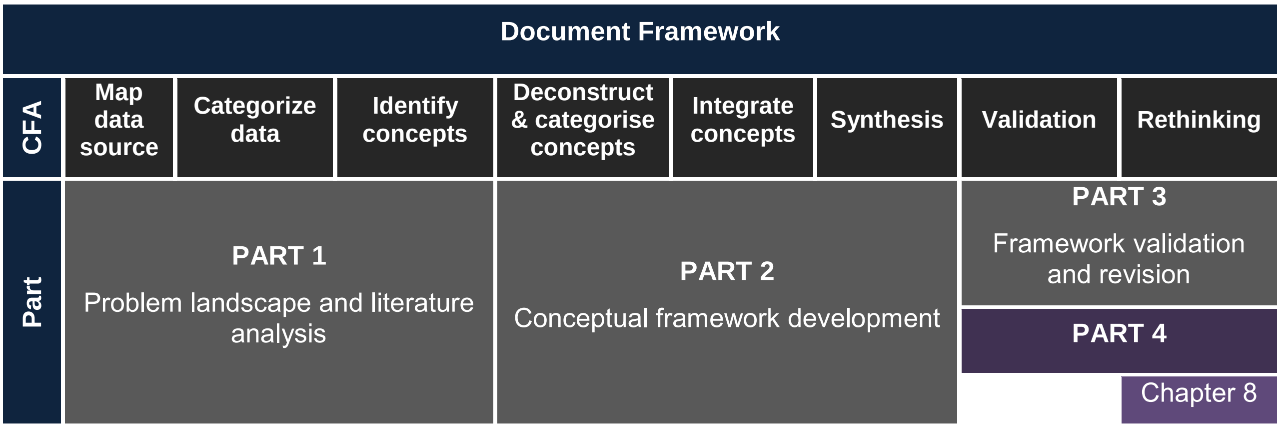
7.4. Chapter 7: Conclusion

Chapter 7 presents the assembled DDM tool. The DDM tool is a culmination of the findings from the study and supports the conceptual framework as a guidance tool. The validated framework is used as the basis of the DDM tool. Component 1 (due diligence process management) of the conceptual framework is used to develop the first component of the DDM tool; due diligence process management. Gillman's (2010) integrated due diligence approach is used in combination with component 2 (preliminary due diligence), component 3 (due diligence review) and component 4 (transactional due diligence) of the conceptual framework to develop the second component of the DDM tool, namely, due diligence investigations. The insight provided in the DDM tool provides a systematic approach to the due diligence process from start to finish.

A case study on the acquisition of an engineering company by an investment holding company was conducted to evaluate the effectiveness of the DDM tool. The DDM tool was confirmed through the case study process as being useful and applicable to a due diligence process.

Chapter 8 concludes this research study. It presents a concise summary of the research conducted, the final findings and recommendations for future work.

Chapter 8 – Conclusion and Recommendations



The closing chapter concludes this research study by presenting the research findings and a summary of how the key objectives were achieved. In addition, the limitations of this study are discussed and recommendations for future work is provided. Figure 8.1 provides a summary of the key outcomes of this concluding chapter.

Key Outcomes	Provide a summary of the research study as well as the results obtained
	Discuss the research objectives
	Discuss the insights gained from the research study
	Present the limitations of the research study
	Provide recommendations for future work

Figure 8.1 - Key Outcomes – Chapter 8

8.1. Research summary

This section presents a summary of the research findings according to the research process introduced in Chapter 2. An illustration of the various parts of the research process and their corresponding chapters is illustrated in Figure 8.2.

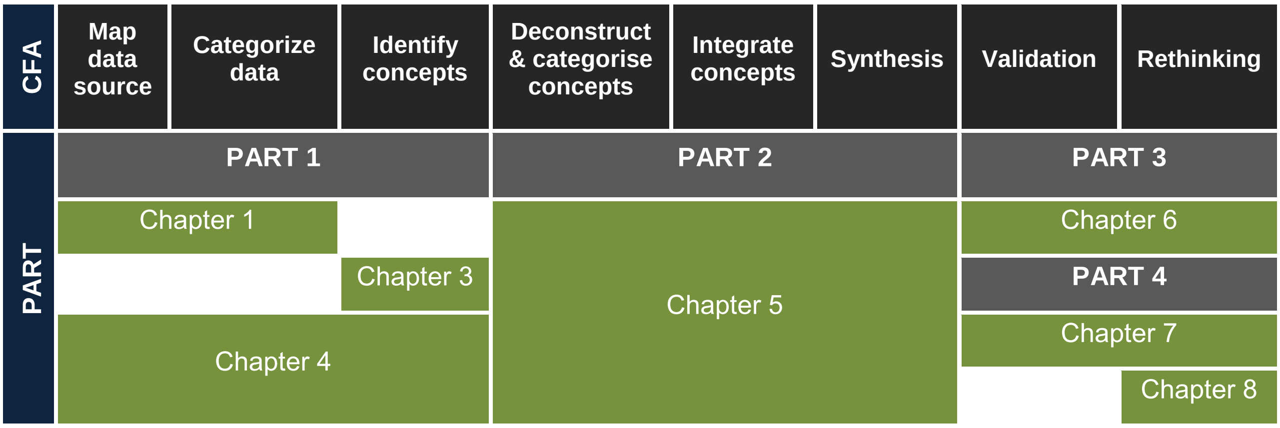


Figure 8.2 - The research process

8.1.1. Part 1: Problem Landscape and literature analysis

M&A transactions have been increasing exponentially over the past few decades; however, this rise has been met with a rise in the number of failed deals. Insufficient due diligence investigations are one of the many factors that contribute towards the high failure rate in M&A transactions. The due diligence stage of a M&A transaction is therefore key in ensuring a higher probability of success for a deal. The key to investigating whether a M&A transaction is viable is a comprehensive due diligence. Due diligence is a process used to uncover all risks associated with a deal, potential synergies as well as any serious “deal killers”.

Considering the importance of the due diligence stage in a M&A transaction, there is a distinct gap which exists in the published research surrounding the processes that should be followed for a due diligence investigation to ensure that an effective decision on the M&A transaction can be reached. Furthermore, there is no publicly available framework or guideline available to comprehensively manage the due diligence investigation. A lack of understanding in what constitutes a thorough due diligence investigation means that due diligence investigations are often insufficient. As a consequence, organisations, especially those which are inexperienced in M&A transactions, often face schedule overruns and hire costly advisors and consultants to assist or lead their due diligence investigation.

The fundamental issues that exist in relation to establishing an effective due diligence investigations are: (i) the lack of a comprehensive and systematic approach to managing the due diligence process, (ii) the constraints facing due diligence processes, and (iii) key factors essential to the success of a due diligence process.

A conceptual literature review was conducted on the field of M&A with a specific focus on due diligence. The conceptual literature review assisted in uncovering some of the major characteristics of due diligence. Through analysing the purpose for conducting due diligence, it was found that due diligence fulfils certain legal requirements surrounding a M&A transaction whilst also playing a key role in ensuring whether or not a deal should go ahead. The characteristics of due diligence uncovered include: timing of when due diligence takes place, the due diligence team, and the level and scope of due diligence required. The different areas of due diligence were also analysed. The identification of the major characteristics informed the categorisation of data sources in the systematic literature review.

The systematic literature review sought to uncover the key concepts relating to a due diligence investigation. A database of 39 publications was used as the basis for the literature review. There were three categories that were used to identify the relevant concepts: (1) areas of due diligence, (2) due diligence process factors, and (3) due diligence principles and concepts.

The systematic literature review highlighted that there are many factors that can affect how a due diligence can be managed and executed. It is clear from the two literature reviews undertaken that there are few methodologies or tools available to plan, manage and execute a due diligence process whilst taking into account different factors, such as, risk and constraints.

8.1.2. Part 2: Conceptual framework development

The conceptual framework was developed in line with Jabareen's (2009) CFA. There were two main aspects of due diligence which the conceptual framework needed to address: management of the due diligence process, and the areas of investigation for the due diligence process. The conceptual framework was split into four parts to address the different aspects of due diligence.

Component 1, which is due diligence process management, contains seven key activities: (1) due diligence team, (2) motive and rationale, (3) planning, (4) due diligence review, (5) summarising findings, (6) recommendations, and (7) post-merger support. Concepts identified from the systematic literature review were grouped under these seven activities.

The conceptual framework addressed the second aspect of the framework, the areas of investigation for the due diligence process, by using the three-step model for due diligence: (1) preliminary due diligence, (2) due diligence review, and (3) transactional due diligence. These three phases each constituted separate components of the conceptual framework, namely, components 2, 3, and 4 respectively. The various areas of due diligence (financial, legal, environmental, etc.) and their corresponding concepts were grouped under the due diligence review component.

8.1.3. Part 3: Framework validation and revision

The validation of the conceptual framework consisted of five semi-structured interviews with professionals working within the M&A due diligence space. Participants suggested a series of additions and changes to the conceptual framework. The inclusion of particular concepts within the conceptual framework were validated by the interview participants.

The feedback received from the semi-structured interviews was used to revise the conceptual framework. The additions and changes suggested were incorporated and the revised conceptual framework is presented at the end of Chapter 6.

8.1.4. Part 4: Development of the DDM tool

The final findings in this study culminate in the development of the DDM tool presented in Section 7.2. The management tool was developed from the validated conceptual framework as well as the outcomes of Chapter 3 and Chapter 4.

The aim of the DDM tool is to provide a systematic approach to the entire due diligence process. The DDM tool has two components: (1) due diligence process management, and (2) due diligence investigations.

The DDM tool was applied to a case study to evaluate the effectiveness of the DDM tool. The DDM tool was confirmed through the case study process as being useful and applicable to a due diligence process.

This study opens a pathway for future M&A transactions to implement a comprehensive due diligence investigation by using the DDM tool. A comprehensive due diligence process has the ability to make or break a deal. Therefore, the author hopes that the DDM tool will be an effective and useful tool for companies embarking on M&A transactions in the future.

8.2. Research objectives achieved

Primarily, this research aims to solve three key issues within the M&A transaction process by focussing on the due diligence stage of the deal. Firstly, this research aims to provide a systematic approach to managing the due diligence process. Secondly, this research aims to address the significant constraints, specifically, cost and time, facing the due diligence process. Lastly, this research endeavours to address the risk factors associated with a M&A transaction. By addressing these three issues in combination, this research aims to increase the probability of success for a M&A transaction by ensuring that the due diligence process is adequate and comprehensive.

The principle aim of this research was first outlined in Section 1.3 and is addressed through four primary objectives and three sub-objectives. These primary objectives and sub-objectives have been restated below.

1. Conduct a conceptual literature review to form an understanding of the broader M&A environment and due diligence.
2. Conduct a systematic literature review to identify and refine concepts surrounding M&A due diligence.
3. Develop a conceptual framework for M&A due diligence by carrying out the following sub-objectives:
    - 3.1. Analyse and deconstruct the concepts identified during the systematic literature review.
    - 3.2. Synthesize these concepts into a conceptual framework.
    - 3.3. Evaluate the conceptual framework through feedback from industry experts.
4. Develop a DDM tool from the evaluated conceptual framework that can be used to facilitate the M&A due diligence process.

8.2.1. Conclusions pertaining to research objective 1

The first research objective has been completed by undertaking a detailed conceptual literature review to investigate the M&A environment and due diligence. This literature review was structured to provide information regarding the M&A landscape, the M&A process, the purpose of due diligence, the due diligence process and the areas of due diligence. The integrated due diligence approach was also identified and analysed.

8.2.2. Conclusions pertaining to research objective 2

The second research objective has been achieved by undertaking a systematic literature review to identify and refine the concepts relating to M&A due diligence. The review uncovered 39 publications relating to due diligence which were cross-examined to extract concepts surrounding the areas of due diligence, due diligence process factors, and due diligence principles and concepts. The concepts were arranged according to sub categories to allow for easier interpretation and usage in the subsequent chapters of this research study.

8.2.3. Conclusions pertaining to research objective 3

The third research objective has been completed through the development of the conceptual framework. The outcomes from the first two research objectives led to the construction of the conceptual framework. The most relevant and prominent concepts and factors were analysed and then incorporated into the conceptual framework.

The development of the conceptual framework produced four components: (1) due diligence process management, (2) preliminary due diligence, (3) due diligence review, and (4) transactional due diligence. Two important aspects are addressed by the conceptual framework, namely: the management of the due diligence process and the areas of investigation for the due diligence process.

The conceptual framework was subsequently validated through a series of semi-structured interviews with professionals working within the M&A due diligence space. The feedback and recommendations from these interviews was incorporated into the conceptual framework to produce the revised and validated conceptual framework.

8.2.4. Conclusions pertaining to research objective 4

The fourth research objective has been achieved through combining the outcomes of the interviews with the conceptual framework development. The final DDM tool provides a systematic approach to the due diligence process. The DDM tool guides the due diligence process from preparing for the process to managing and executing the process. Best practices are employed throughout the tool and directives are provided to ensure that the due diligence process is carried out comprehensively.

The DDM tool is applied to a case study to evaluate the tool's effectiveness. Through the case study, the DDM tool is confirmed to be useful and applicable to the due diligence process thereby confirming the desired outcome of the DDM tool.

8.3. Insights gained

The field of M&A is vast and there are many different aspects of this field which can be analysed and researched. The due diligence stage of a M&A transaction posed a unique opportunity owing to the process-like nature of due diligence. It was found that there was a unique gap within this area to apply a process management perspective.

A common trend observed through analysing the literature available and conducting interviews with professionals working within the field of due diligence is that not enough time and attention is devoted to planning and conducting a thorough due diligence process.

One of the main insights gained through conducting this research study is that taking some time before the start of a due diligence process to properly plan the investigations and account for the constraints can save a lot of time and money in the long run. Due diligence processes, if left unmanaged, can spiral in terms of the cost and time involved. Further, a rushed or cursory due diligence process can lead to issues further down the line. A comprehensive and well-managed due diligence process can unearth many issues before the M&A transaction is completed. This assists the acquirer in properly planning how to manage the integration of the target once the acquisition is complete.

Many issues only come to the fore once the transaction has been completed and the integration process has occurred. Due diligence can minimise the risk of this occurring.

The systematic approach towards due diligence presented in this research study assists the acquirer in planning, managing and executing a thorough and efficient due diligence process. The emphasis of the conceptual framework and DDM tool on accounting for constraints specifically, time and cost, can save the acquirer in the long run.

It is not wise to rush into a due diligence process. Although there may be time constraints on a deal, it is prudent to take some time before the start of the due diligence process to plan effectively as in the long run, these sacrifices will pay off if a thorough and well managed due diligence process is the executed.

8.4. Study limitations

There are certain limitations that should be acknowledged when interpreting the findings of this research study. Specifically:

1. Due to time and resource constraints, only two databases were used for the identification of publications in the systematic literature review. The use of more databases could have resulted in a larger dataset of publications.
2. The systematic literature review screening of papers was completed by only one researcher and may have resulted in some bias.

3. The participants in the interviews are primarily from the financial and legal backgrounds and could therefore not validate all areas of due diligence. Unfortunately, the author could not identify an expert to represent every area of due diligence covered; however, the experts who did participate in the interviews all have practical and theoretical knowledge on M&A due diligence processes.
4. The number of case studies analysed is limited due to resource and time constraints.
5. It is difficult to conduct case studies in the M&A environment due to the nature of the deals and the commercially sensitive information involved. However, a case study was identified and the researcher was able to work through the case study despite certain sensitive information being shared.
6. Due diligence processes are complex in nature and inherently require many considerations throughout their planning, management and execution. Although the DDM tool provides guidance for the due diligence process, it should be noted that no due diligence process functions in the same way, therefore consideration must be given for the context and nature of the deal.
7. The conceptual framework and DDM tool need to continuously evolve to remain relevant and usable within the dynamic M&A environment.

8.5. Recommendations for future research

The final DDM tool presented in Section 7.2 and the limitations discussed in Section 8.4 highlight potential paths for future research.

The first avenue for future work relates to the evaluation of the conceptual framework and DDM tool. Additional case studies would be useful in refining the conceptual framework and DDM tool. The case study conducted on the DDM tool covered a particular type of M&A deal; however, as indicated in Section 3.1.2 there are many other types of M&A deals. It would be useful to apply the conceptual framework and the DDM tool to different types of deals to evaluate how they would perform. The generalised conceptual framework and DDM tool presented in this study could be used to formulate specific frameworks or tools for particular types of M&A deals.

Future work could also focus specifically on the South African M&A environment. Although the case study applied in Section 7.3 is located in South Africa, the conceptual framework and DDM tool was not specifically developed with any particular jurisdiction in mind. By evolving the conceptual framework and DDM tool to suit a South African context, local issues can be incorporated into the conceptual framework and management tool. For example, issues relating to BBBEE.

M&A transactions normally include some cross-border issues. Due to time limitations and the complexity involved in cross-border deals, the conceptual framework and DDM tool is only suited to deals occurring within one jurisdiction. Future studies could focus on adapting the conceptual framework and DDM tool to cross-border deals.

The final recommendation is to adapt the conceptual framework and DDM tool to specific industries. Due to the generalised approach taken in this study, industries were not considered during the development of the conceptual framework. Certain industries often require a nuanced approach to due diligence and require specific investigations to be completed. The conceptual framework and DDM tool could be adapted to cater for specific industry needs.

This chapter concludes the research study. A summary of the research was provided which elaborated on each of the four parts of the research process. This chapter provided conclusions on the four research objectives, which were all met successfully. The limitations of the research were also listed in this chapter. The chapter concludes with recommendations for future research.

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Addendum A

Systematic literature publications

Number	Title of paper	Reference
1	Compleat compliance: Due diligence on companies and individuals	(Ainsworth, 2007)
2	Executing on Integration: The Key to Success in Mergers and Acquisitions	(Bradley, 2016)
3	Environmental due diligence for commercial and residential real estate	(Brancone-Capponi, Miller and Cecconi, 2016)
4	Using patent citation analysis to target-value M&A candidates	(Breitzman and Thomas, 2002)
5	When to Walk Away from a Deal	(Cullinan, Le Roux and Weddigen, 2004)
6	Cultural due diligence in mergers and acquisitions	(Denison and Ko, 2016)
7	Loose lips can sink ships	(Davis, 2018)
8	Improving the acquisition profit of cross border transactions by adjusting the tax due diligence process - A theoretical model based on a German target	(Endert and Mammen, 2015)
9	A synergy measurement model to support the pre-deal decision making in mergers and acquisitions	(Garzella and Fiorentino, 2013)
10	Using capital transaction due diligence to demonstrate CSR assessment in practice	(Knecht and Calenbuhr, 2007)
11	Making brand equity a key factor in M&A decision-making	(Kumar and Hansted Blomqvist, 2004)
12	Is the role of HRM strategic in M&A success? Exploring the involvement of HRM in a due diligence process	(Latukha and Panibratov, 2013)
13	M&A: Due Diligence: More Than a Financial Exercise	(Lebedow, 1999)
14	High tech M&A - Strategic valuation	(Patrick Lemieux and Banks, 2007)
15	Deals without delusions	(Lovallo *et al.*, 2008)
16	Doing the Deal Part 3: Enhanced Environmental Due Diligence	(MacLean and Goldstein, 2000)
17	Merger manual	(Maxwell, 1998)
18	Safety guidelines for the merger and acquisition process	(Weber, 2006)
19	Merger deal breakers: When operational due diligence exposes risk	(Morrison, Kinley and Ficery, 2008)

20	Reducing M&A risk through improved due diligence	(Perry and Herd, 2004)
21	Critical factors of pre-acquisition due diligence in cross-border acquisitions	(Sacek, 2016)
22	A study on financial strategy for determining the target enterprise of merger and acquisition	(Song *et al.*, 2009)
23	Due diligence as a key success factor of mergers and acquisitions	(Savovic and Pokrajcic, 2013)
24	The importance of intellectual property due diligence in mergers and acquisitions	(Silverman, 2004)
25	Double due diligence: Incorporating strategic environmental management in environmental assessments for industrial mergers and acquisitions	(Traves, 2002)
26	Applying a fuzzy multiple criteria decision-making approach to the M&A due diligence	(Tsao, 2009)
27	Strategic Due Diligence: A Foundation for M&A Success	(Adolph, Gillies and Krings, 2006)
28	Mergers and Acquisitions across European Borders: National Perspectives on Pre-acquisition Due Diligence and the Use of Professional Advisers	(Angwin, 2001)
29	Private equity into high-risk markets - The need for a new due diligence approach	(Glapion, 2012)
30	Due Diligence Review: M&A Behind the Scenes	(GrantThornton, 2004)
31	Marketing due diligence … where do customer and marketing details fit into pre-deal activity?	(Gould, 1981)
32	Human Due Diligence	(Harding and Rouse, 2007)
33	Expanding the nature and scope of due diligence	(Harvey and Lusch, 1995)
34	Beyond traditional due diligence for mergers and acquisitions in the 21st century	(Harvey and Lusch, 1998)
35	Dynamic due diligence an entrepreneurial business planning method for evaluating mergers and acquisitions	(Hindle, 1994)
36	Due diligence neglected: managing human resources and organisational culture in mergers and acquisitions	(Horwitz *et al.*, 2002)
37	Managing the pre-combination phase of mergers and acquisitions	(Marks and Mirvis, 2015)
38	Extending Due Diligence to Improve Mergers and Acquisitions	(McGrady, 2005)
39	M&A Due Diligence and its Consequences for Post-Acquisition Financial Statements	(Wangerin, 2010)

Addendum B

REC Ethics participation consent form

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CONSENT TO PARTICIPATE IN RESEARCH

Dear Prospective Participant

My name is Vivek Bhagwan and I am a postgraduate student at the Department of Industrial Engineering, Stellenbosch University studying towards my MEng (Engineering Management). I would like to invite you to participate in a research project entitled Development of a Due Diligence Tool for M&A Transactions.

Please take some time to read the information presented here, which will explain the details of this project and contact me if you require further explanation or clarification of any aspect of the study. Also, your participation is **entirely voluntary,** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

1. Introduction

Organisations are under constant pressure to grow in the face of increased competition, changing conditions, shrinking geographical boundaries and increasingly relaxed country and currency regulatory environments. In order to remain a player or an idustry leader, it is imperitave for companies to achieve real growth. Mergers and acquisitions (M&A) is an external mechanism for organisations to achieve real growth. There are different stages in the typical M&A transaction. The due diligence stage of a transaction is critical in evaluating whether or not to proceed with a deal. It further provides essential information that is used in seting negotiating parameters, determining bid prices and providing a basis for intitial integration reccomendations. The due diligence process therefore should be managed effectively as in doing so, a higher probability of success is secured for the deal.

To increase the probability of success whilst also reducing the costs of the due diligence process, a conceptual framework for the management of the due diligence process is to be developed. The framework will incorporate information surrounding the various areas of due diligence, the best practices in conducting due diligence as well as the risk and success factors of a through due diligence process.

2. Purpose

The aim of this study is to create a tool which can be used by firms embarking on M&A to optimise their due diligence process. This tool will be developed primarily though the conceptual framework. This study aims to add to the literature surrounding the M&A field by addressing the gap which exists within the due diligence stage of M&A transactions. The conceptual framework for the management of the due diligence process requires validation by experts in the field of M&A due diligence, therefore necessitating a practical component through interviews.

3. Procedures

The qualitative nature of this study requires participants to take part in discussions concerning M&A due diligence and the various areas (e.g. financial, legal, etc. due diligence), best practices and process considerations (success factors, risk factors, costs etc.) within. These discussions will be in the form of an interview which will, if possible, be held in person or alternatively via Skype. Interviews will take place at the convenience of the participant.

4. Time

The interview will be a maximum of one hour. Should more time be required, the researcher will request a follow up interview with the participant.

5. Risks

The researcher does not anticipate this study to pose any risks or discomfort to the participant. Should the participant feel any discomfort during the interview process, he/she may withdraw from participating in the study. The researcher will to the best of their ability wok to minimise any risks, discomforts or inconveniences.

6. Benefits

Participation in this study is done on a voluntary basis. Participants will not receive any payment for taking part in the study. The participant will not benefit directly in the study however they are contributing towards the literature on M&A due diligence.

7. Confidentiality, Recording and Data Storage

All personal information gathered in this study will remain strictly confidential and shall not be disclosed without the participant's consent. A description of how data confidentiality will be maintained throughout this study is provided below.

The interviews which are conducted either in person or via Skype will be voice recorded to allow the researcher to refer to when processing the data. The recording of the interview will be stored on a USB drive which will be locked in the Engineering Faculty at Stellenbosch University. Security is maintained via strict card-only access as well as CCTV cameras positioned throughout the building. Only the researcher and supervisor will have access to the interview data. A backup of data will be kept on a secure, password protected Dropbox folder online.

The confidentiality and terms of engagement as well as company confidentiality, where applicable, will be discussed prior to the interview between all parties involved. Participants will remain anonymous throughout the study documentation. Each participant will be given an alias (Respondent 1, Respondent 2, etc.) to ensure anonymity. Direct quotes by the participant will only be used in the thesis document with the permission of the participant. The use of the data in future work will only occur once permission has been obtained from the participant.

8. Participation

Participation in this study is done on a voluntary basis. The participant is free to withdraw from the study at any point without consequences. Participants are free to refuse to answer questions they do not feel comfortable with. Should a participant withdraw from the study, all data gathered thus far will be destroyed.

If you have any questions or concerns about the research, please feel free to contact the principle researcher, Vivek Bhagwan [17539242@sun.ac.za; +27 (0)78 975 0987] and/or the Supervisor of this study, Professor Sara (Saartjie) Grobbelaar [ssgrobbelaar@sun.ac.za; +27 (0)21 808 4247].

RIGHTS OF RESEARCH PARTICIPANTS: You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

You have right to receive a copy of the Information and Consent form.

If you are willing to participate in this study, please sign the attached Declaration of Consent and e-mail it to the principle researcher.

DECLARATION BY PARTICIPANT

By signing below, I ………………………………………………………………….. agree to take part in a research study entitled Development of a Due Diligence Tool for M&A Transactions and conducted by Vivek Bhagwan

I declare that:

- I have read the attached information leaflet and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.
- All issues related to privacy and the confidentiality and use of the information I provide have been explained to my satisfaction.

Signed on ……………………..

…………………………………………………………………

Signature of participant

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to ____ [*name of the participant]. [H*e/she] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/*English/*Xhosa/*Other*] and [*no translator was used/this conversation was translated into* ____________ by __________________________]*.*

______________________________________ ______________

Signature of Investigator **Date**

Addendum C

Semi-structured interview protocol

Dear Participant

Thank you for agreeing to participate in this interview as a part of the research towards my Master's degree in Engineering Management with the title "Development of a due diligence tool for M&A transactions." The aim of this interview is to provide the researcher with practical insight and feedback on the conceptual framework developed to aid in the management of the M&A due diligence process. The interview with a specialist in this field will provide validation of the usability and completeness of the framework.

A copy of the conceptual framework (A conceptual framework for managing the due diligence stage of an M&A transaction) will be provided prior to the interview. I request that you familiarise yourself with the content of the framework to assist you in answering the questions.

You are not obliged to answer any of the questions during the interview and you may stop me at any stage if you are feeling uncomfortable. Further, you are not required to complete the interview and you may leave at any time should you wish to do so. You are welcome to ask any questions throughout the interview.

To document this interview for future reference, the interview will be voice recorded. Following the completion of the interview, the researcher will transcribe the interview. Your personal details will not be shared, and your feedback will be kept anonymous. All data collected during the interview will be stored in a secure location both physically and online.

A guide of the interview questions is presented below. Please take note that this interview is semi structured therefore we will follow the prescribed questions below, however if I find that you have knowledge on a specific area, I may pose further questions to you relating to that area.

1. From your experience, what would you say is the most crucial aspect(s) for the due diligence process in an M&A transaction?
2. In terms of the constraints facing the due diligence process, cost is often a significant barrier. What are the most significant costs for a due diligence process?
3. Does the framework cover the most crucial areas of due diligence (financial, legal, operational, etc.) adequately?
4. What are the best practices which you consider when conducting a M&A due diligence?
5. How do you measure the success of a due diligence process (i.e critical success factors)?
6. How do you decide on the critical success factors which will determine the outcome of the due diligence investigations?
7. How do you go about creating a due diligence checklist when initiating your investigations?
8. What are common risk factors you encounter throughout the due diligence process?
9. Which tools do you consider crucial in conducting due diligence in each area identified (Financial, legal, tax, environmental, operational, market, human resources, cultural, strategic, marketing, intellectual property, technology and R&D)?
10. What are the most important aspects you consider when composing a due diligence team?
11. In your experience, which aspects of the framework are applicable to every due diligence process, regardless of the nature of the transaction?
12. What procedures do you follow when you find that the information or data you require is not readily available?
13. How do you determine the amount and depth of due diligence to be completed?
14. Following the completion of the due diligence activities, what are the next steps which the due diligence team should focus on (i.e. briefing the negotiations or integration team)?
15. Do you make use of a framework or model to assist in completing your due diligence investigations?
16. How reliant are you on external parties (i.e. consultants or experts) in assisting the due diligence investigations?

17. What are some of the common challenges you face when conducting a due diligence investigation?
18. In your experience, is a due diligence investigation the major deciding factor on whether to proceed with a deal?
19. What are the possible outcomes of a due diligence investigation?
20. Do you have any further comments or recommendations regarding the framework?

Thank you again for participating in this interview and for providing valuable insight and feedback on the framework which has been developed.